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MANUAL

FOR

NONCOMMISSIONED OFFICERS AND PRIVATES

OF

CAVALRY

OF

THE ARMY OF THE UNITED STATES

1917

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WAR DEPARTMENT

MANUAL

FOR NONCOMMISSIONED OFFICERS AND PRIVATES OF

CAVALRY

OF THE ARMY OF THE UNITED STATES

1917

TO BE ALSO USED BY ENGINEER COMPANIES (MOUNTED) FOR CAVALRY INSTRUCTION AND TRAINING

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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WAR DEPARTMENT,
WASHINGTON, *June 28, 1917.*

The following Manual for Noncommissioned Officers and Privates of Cavalry is published for the information and guidance of all concerned.

[2582824 C.—A. G. O.]

BY ORDER OF THE SECRETARY OF WAR:

TASKER H. BLISS,
Major General, Acting Chief of Staff.

OFFICIAL:

H. P. McCAIN,
The Adjutant General.

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MANUAL

FOR

NONCOMMISSIONED OFFICERS AND PRIVATES OF CAVALRY

OF THE

ARMY OF THE UNITED STATES.

CHAPTER I.

MILITARY DISCIPLINE AND COURTESY.

Section 1. Oath of enlistment.

Every soldier on enlisting in the Army takes upon himself the following obligation:

"I, ———, do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America; that I will serve them honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the President of the United States, and the orders of the officers appointed over me according to the Rules and Articles of War." (100th Article of War.)

Section 2. Obedience.

The very first paragraph in the Army Regulations reads:

"All persons in the military service are required to **obey strictly** and to **execute promptly** the lawful orders of their superiors."

Obedience is the first and last duty of a soldier. It is the foundation upon which all military efficiency is built. Without it an army becomes a mob, while with it a mob ceases to be a mob and becomes possessed of much of the power of an organized force. It is a quality that is demanded of every person in the Army from the highest to the lowest. Each enlisted man binds himself, by his enlistment oath, to obedience. Each officer, in accepting his commission, must take upon himself the same solemn obligation.

Obey strictly and execute promptly the lawful orders of your superiors. It is enough to know that the person giving the order, whether he be an officer, a noncommissioned officer, or a private acting as such, is your lawful superior. You may not like him, you may not respect him, but you must respect his position and authority, and reflect honor and credit upon yourself and your profession by yielding to all superiors that complete and unhesitating obedience which is the pleasure as well as the duty of every true soldier.

Orders must be strictly carried out. It is not sufficient to comply with only that part which suits you or which involves no work or danger or hardship. Nor is it proper or permissible, when you are ordered to do a thing in a certain way or to accomplish a work in a definitely prescribed manner, for you to obtain the same results by other methods.

Obedience must be **prompt and unquestioning.** When any soldier (and this word includes officers as well as enlisted men) receives an order, it is not for him to consider whether the order is a good one or not, whether it would have been better had such an order never been given, or whether the duty might be better performed by some one else, or at some other time, or in some other manner. His duty is, first, to understand just what the order requires, and, second, to proceed at once to carry out the order to the best of his ability.

"Officers and men of all ranks and grades are given a certain independence in the execution of the tasks to which they are assigned and are expected to show initiative in meeting the different situations as they arise. Every individual, from the highest commander to the lowest private, must always remember that inaction and neglect of opportunities will warrant more severe censure than an error in the choice of the means." (*Preface, Field Service Regulations.*)

Section 3. Loyalty.

But even with implicit obedience you may yet fail to measure up to that high standard of duty which is at once the pride and glory of every true soldier. Not until you carry out the desires and wishes of your superiors in a hearty, willing, and cheerful manner are you meeting all the requirements of your profession. For an order is but the will of your superior, however it may be expressed. Loyalty means that you are for your organization and its officers and noncommissioned officers—not against them; that you always extend your most earnest and hearty support to those in authority. No soldier is a loyal soldier who is a knocker or a grumbler or a shirker. Just one man of this class in a troop breeds discontent and dissatisfaction among many others. You should, therefore, not only guard against doing such things yourself but should discourage such actions among any of your comrades.

Section 4. Discipline.

"1. All persons in the military service are required to obey strictly and to execute promptly the lawful orders of their superiors.

"2. Military authority will be exercised with firmness, kindness, and justice. Punishments must conform to law and follow offenses as promptly as circumstances will permit.

"3. Superiors are forbidden to injure those under their authority by tyrannical or capricious conduct or by abusive language. While maintaining discipline and the thorough and prompt performance of military duty, all officers, in dealing with enlisted men, will bear in mind the absolute necessity of so treating them as to preserve their self-respect. Officers will keep in as close touch as possible with the men under their command and will strive to build up such relations of confidence and sympathy as will insure the free approach of their men to them for counsel and assistance. This relationship may be gained and maintained without relaxation of the bonds of discipline and with great benefit to the service as a whole.

"Courtesy among military men is indispensable to discipline; respect to superiors will not be confined to obedience on duty, but will be extended on all occasions.

"5. Deliberations or discussions among military men, conveying praise or censure, or any mark of approbation, toward others in the military service, and all publications relating to private or personal transactions between officers are prohibited. Efforts to influence legislation affecting the Army or to procure personal favor or consideration should never be made except through regular military channels; the adoption of any other method by any officer or enlisted man will be noted in the military record of those concerned." (*Army Regulations.*)

"The discipline which makes the soldier of a free country reliable in battle is not to be gained by harsh or tyrannical treatment. On the contrary, such treatment is far more likely to destroy than to make an army. It is possible to impart instruction and give commands in such manner and in such tone of voice as to inspire in the soldier no feeling but an intense desire to obey, while the opposite manner and tone of voice can not fail to excite strong resentment and a desire to disobey. The one mode or the other of dealing with subordinates springs from a corresponding spirit in the breast of the commander. He who feels the respect which is due to others can not fail to inspire in them regard for himself, while he who feels, and hence manifests, disrespect toward others, especially his inferiors, can not fail to inspire hatred against himself." (*Address of Maj. Gen. John M. Schofield to the United States Corps of Cadets, Aug. 11, 1879.*)

When, by long-continued drill and subordination, you have learned your duties, and obedience becomes second nature, you have acquired discipline. It can not be acquired in a day nor a month. It is a growth. It is the **habit of obedience**. To teach this habit of obedience is the main object of the close-order drill, and, if good results are to be expected, the greatest attention must be paid to even the smallest details. The troop, platoon, or squad must be formed promptly at the prescribed time—not a minute or even a second late. All must wear the exact uniform prescribed and in the exact manner prescribed. When at attention there must be no gazing about, no raising of hands, no chewing or spitting in ranks. The manual of the rifle, the pistol, the saber, and all movements must be executed absolutely as prescribed. A drill of this kind

teaches discipline. A careless, sloppy drill breeds disobedience and insubordination. In other words, discipline simply means efficiency.

Section 5. Military courtesy.

In all walks of life men who are gentlemanly and of good breeding are always respectful and courteous to those about them. It helps to make life move along more smoothly. In civil life this courtesy is shown by the custom of tipping the hat to ladies, shaking hands with friends, and greeting persons with a nod or a friendly "Good morning," etc.

In the Army courtesy is just as necessary, and for the same reasons. It helps to keep the great machine moving without friction.

"Courtesy among military men is indispensable to discipline; respect to superiors will not be confined to obedience on duty, but will be extended on all occasions." (*Par. 4, Army Regulations, 1913.*)

One method of extending this courtesy is by saluting. When in ranks the question of what a private should do is simple—he obeys any command that is given. It is when out of ranks that a private must know how and when to salute.

Section 6. Saluting.

In the old days the free men of Europe were all allowed to carry weapons, and when they met each would hold up his right hand to show that he had no weapon in it and that they met as friends. Slaves or serfs, however, were not allowed to carry weapons, and slunk past the free men without making any sign. In this way the salute came to be the symbol or sign by which soldiers (free men) might recognize each other. The lower classes began to imitate the soldiers in this respect, although in a clumsy, apologetic way, and thence crept into civil life the custom of raising the hand or nodding as one passed an acquaintance. The soldiers, however, kept their individual salute, and purposely made it intricate and difficult to learn in order that it could be acquired only by the constant training all real soldiers received. To this day armies have preserved their salute, and when correctly done it is at once recognized and

never mistaken for that of the civilian. All soldiers should be careful to execute the salute exactly as prescribed. The civilian or the imitation soldier who tries to imitate the military salute, invariably makes some mistake which shows that he is not a real soldier; he gives it in an apologetic manner, he fails to stand or march at attention, his coat is unbuttoned or hat on awry, or he fails to look the person saluted in the eye. There is a wide difference in the method of rendering and meaning between the civilian salute as used by friends in passing, or by servants to their employers, and the MILITARY SALUTE, the symbol and sign of the military profession.

To salute with the hand, first assume the position of a soldier or march at attention. Look the officer you are to salute straight in the eye. Then, when the proper distance separates you, raise the right hand smartly till the tip of the forefinger touches the lower part of the headdress or forehead above the right eye, thumb and fingers extended and joined, palm to the left, forearm inclined at about 45°, hand and wrist straight. Continue to look the officer you are saluting straight in the eye and keep your hand in the position of salute until the officer acknowledges the salute or until he has passed. Then drop the hand smartly to the side. The salute is given with the right hand only.

To salute with the rifle, bring the rifle to right shoulder arms if not already there. Carry the left hand smartly to the small of the stock, forearm horizontal, palm of the hand down, thumb and fingers extended and joined, forefinger touching the end of the cocking piece. Look the officer saluted in the eye. When the officer has acknowledged the salute or has passed, drop the left hand smartly to the side and turn the head and eyes to the front. The rifle salute may also be executed from the order or trail. See paragraph 94, Infantry Drill Regulations, and paragraph 111, Cavalry Drill Regulations, 1916.

To salute with the pistol when drawn, assume the position of **Raise Pistol,** muzzle up, the hand holding the stock with the thumb and last three fingers, forefinger outside the guard, barrel to the rear and inclined to the front at an angle of 30°, hand as high as the neck and 6 inches in front of the point of the right shoulder. The pistol is carried in the holster, except when about to be used. It will not be drawn for the pur-

pose of saluting. When armed only with the pistol in the holster, salute with the hand.

To salute with the saber, bring the saber to carry saber if not already there, carry the saber to the front with arm half extended until the thumb is about 6 inches in front of the chin, the blade vertical, guard to the left, all four fingers grasping the grip, the thumb extending along the back in the groove, the fingers pressing the back of the grip against the heel of the hand. Look the officer saluted in the eye. When the officer has acknowledged the salute or has passed, bring the saber down with the blade against the hollow of the right shoulder, guard to the front, right hand at the hip, the third and fourth fingers on the back of the grip and the elbow back.

Always stand or march at attention before and during the salute. The hat should be on straight, coat completely buttoned up, and hands out of the pockets.

Section 7. Rules governing saluting.

912. (1) Salutes shall be exchanged between officers and enlisted men not in a military formation, nor at drill, work, games, or mess, on every occasion of their meeting, passing near or being addressed, the officer junior in rank or the enlisted man saluting first.

(2) When an officer enters a room where there are several enlisted men the word "attention" is given by some one who perceives him, when all rise, uncover, and remain standing at attention until the officer leaves the room or directs otherwise. Enlisted men at meals stop eating and remain seated at attention.

(3) An enlisted man, if seated, rises on the approach of an officer, faces toward him, stands at attention, and salutes. Standing, he faces an officer for the same purpose. If the parties remain in the same place or on the same ground, such compliments need not be repeated. Soldiers actually at work do not cease work to salute an officer unless addressed by him.

(4) Before addressing an officer an enlisted man makes the prescribed salute with the weapon with which he is armed, or, if unarmed, with the right hand. He also makes the same salute after receiving a reply.

913. (1) In uniform, covered or uncovered, but not in formation, officers and enlisted men salute military persons as follows: With arms in hand, the salute prescribed for that arm (sentinels on interior guard duty excepted); without arms, the right-hand salute.

(2) In civilian dress, covered or uncovered, officers and enlisted men salute military persons with the right-hand salute.

(3) Officers and enlisted men will render the prescribed salutes in a military manner, the officer junior in rank or the enlisted men saluting first. When several officers in company are saluted all entitled to the salute shall return it.

(4) Except in the field under campaign or simulated campaign conditions, a mounted officer (or soldier) dismounts before addressing a superior officer not mounted.

(5) A man in formation shall not salute when directly addressed, but shall come to attention if at rest or at ease.

914. (1) Saluting distance is that within which recognition is easy. In general, it does not exceed 30 paces.

(2) When an officer entitled to the salute passes in rear of a body of troops, it is brought to attention while he is opposite the post of the commander.

915. In public conveyances, such as railway trains and street cars, and in public places, such as theaters, honors and personal salutes may be omitted when palpably inappropriate or apt to disturb or annoy civilians present.

925. Soldiers at all times and in all situations pay the same compliments to officers of the Army, Navy, Marine Corps, and Volunteers, and to officers of the National Guard as to officers of their own regiment, corps, or arm of service.

918. Sentinels on post doing interior guard duty conform to the foregoing principles, but salute by presenting arms when armed with the rifle. They will not salute if it interferes with the proper performance of their duties. Troops under arms will salute as prescribed in drill regulations.

919. (1) Commanders of detachments or other commands will salute officers of grades higher than the person commanding the unit by first bringing the unit to attention and then saluting as required by subparagraph (1), paragraph 913. If the person saluted is of a junior or equal grade, the unit need not be at attention in the exchange of salutes.

(2) If two detachments or other commands meet, their commanders will exchange salutes, both commands being at attention.

920. Salutes and honors, as a rule, are not paid by troops actually engaged in drill, on the march, or in the field under campaign or simulated campaign conditions. Troops on the service of security pay no compliments whatever.

921. If the command is in line at a halt (not in the field) and armed with the rifle, or with sabers drawn, it shall be brought to present arms or present saber before its commander salutes in the following cases: When the National Anthem is played, or when to the color or to the standard is sounded during ceremonies, or when a person is saluted who is its immediate or higher commander or a general officer, or when the national or regimental color is saluted.

922. At parades and other ceremonies, under arms, the command shall render the prescribed salute and shall remain in the position of salute while the National Anthem is being played; also at retreat and during ceremonies when to the color is played, if no band is present. If not under arms, the organizations shall be brought to attention at the first note of the National Anthem, to the color or to the standard, and the salute rendered by the officer or noncommissioned officer in command as prescribed in regulations, as amended herein.

910. Whenever the National Anthem is played at any place when persons belonging to the military service are present, all officers and enlisted men not in formation shall stand at attention facing toward the music (except at retreat, when they shall face toward the flag). If in uniform, covered, they shall salute at the first note of the anthem, retaining the position of salute until the last note of the anthem. If not in uniform and covered, they shall uncover at the first note of the anthem, holding the headdress opposite the left shoulder and so remain until its close, except that in inclement weather the headdress may be slightly raised.

The same rules apply when to the color or to the standard is sounded as when the National Anthem is played.

When played by an Army band, the National Anthem shall be played through without repetition of any part not required to be repeated to make it complete.

The same marks of respect prescribed for observance during the playing of the National Anthem of the United States shall be shown toward the national anthem of any other country when played upon official occasions.

917. Officers and enlisted men passing the uncased color will render honors as follows: If in uniform, they will salute as required by subparagraph (5), paragraph 759; if in civilian dress and covered, they will uncover, holding the headdress opposite the left shoulder with the right hand; if uncovered, they will salute with the right-hand salute.

The national flag belonging to dismounted organizations is called a color; to mounted organizations, a standard. An uncased color is one that is not in its waterproof cover.

Privates do not salute noncommissioned officers. **Prisoners are not permitted to salute**; they merely come to attention if not actually at work. The playing of the National Anthem as a part of a medley is prohibited in the military service.

Section 8. Courtesies in conversation.

In speaking to an officer, always stand at attention and use the word "Sir." Examples:

"Sir, Private Brown, Company B, reports as orderly."

"Sir, the first sergeant directed me to report to the captain."

(Question by an officer:) "To what company do you belong?"

(Answer:) "Company H, sir."

(Question by an officer:) "Has first call for drill sounded?"

(Answer:) "No, sir;" or "Yes, sir; it sounded about five minutes ago."

(Question by an officer:) "Can you tell me, please, where Major Smith's tent is?"

(Answer:) "Yes, sir; I'll take you to it."

Use the third person in speaking to an officer. Examples:

"Does the Lieutenant wish," etc.

"Did the Captain send for me?"

In delivering a message from one officer to another, always use the form similar to the following: "Lieutenant A presents his compliments to Captain B and states," etc. This form is not used when the person sending or receiving the message is an enlisted man.

In all official conversation refer to other soldiers by their titles, thus: Sergeant B, Private C.

909. In rendering personal honors, when the command *present arms*, officers and men in uniform who are not in formation and are in view and within saluting distance shall salute and shall remain in the position of salute until the end of the ruffles and flourishes, or, if none, until *order arms*. (*Cavalry Drill Regulations, 1916.*)

This extract covers the conduct of officers and soldiers who may be in the vicinity of troops rendering honors to the President or other persons entitled to personal salutes.

CHAPTER II.

ARMS, UNIFORMS, AND EQUIPMENT.

Section 1. The rifle.

The rifle now used by the Army of the United States is the United States magazine rifle, model of 1903, caliber .30.

It is 43.212 inches long and weighs 8.69 pounds.

The bayonet weighs 1 pound and the blade is 16 inches long.

The rifle is sighted for ranges up to 2,850 yards.

The maximum range, when elevated at an angle of 45 degrees, is 4,891 yards (389 yards less than 3 miles).

The smooth bore of the rifle is 0.30 inch in diameter. It is then rifled 0.004 inch deep, making the diameter from the bottom of one groove to the bottom of the opposite groove 0.308 inch. The rifling makes one complete turn in each 10 inches of the barrel.

The accompanying plate shows the names of the principal parts of the rifle.

The only parts of a rifle that an enlisted man is permitted to take apart are the bolt mechanism and the magazine mechanism. Learn how to do this from your squad leader, for you must know how in order to keep your rifle clean. Never remove the hand guard or the trigger guard, nor take the sights apart unless you have special permission from a commissioned officer.

The cartridge used for the rifle is called the .30-caliber model 1906 cartridge. There are four types of cartridges.

The ball cartridge consists of the brass case or shell, the primer, the charge of smokeless powder, and the bullet. The bullet has a sharp point, is composed of a lead core and a jacket of cupro nickel, and weighs 150 grains. The bullet of this cartridge, when fired from the rifle, starts with an initial velocity at the muzzle of 2,700 feet per second.

The blank cartridge contains a paper cup instead of a bullet. It it dangerous up to 100 feet. Firing blank cartridges at a represented enemy at ranges less than 100 yards is prohibited.

The guard cartridge has a smaller charge of powder than the ball cartridge, and five cannelures encircle the body of the shell at about the middle to distinguish it from the ball cartridge. It is intended for use on guard or in riot duty, and gives good results up to 200 yards. The range of 100 yards requires a sight elevation of 450 yards, and the range of 200 yards requires an elevation of 650 yards.

The dummy cartridge is tin plated and the shell is provided with six longitudinal corrugations and three circular holes. The primer contains no percussion composition. It is intended for drill purposes to accustom the soldier to the operation of loading the rifle.

All cartridges are secured five in a clip to enable five cartridges to be inserted into the magazine at one motion. Sixty ball cartridges in 12 clips are packed in a cloth bandoleer to facilitate issue and carrying. When full the bandoleer weighs about 3.88 pounds. Bandoleers are packed 20 in a box, or 1,200 rounds in all. The full box weighs 99 pounds.

Section 2. Care of the rifle.

Every part of the rifle must be kept free from rust, dust, and dirt. A dirty or rusty rifle is a sure sign that the soldier does not realize the value of his weapon, and that his training is incomplete. The rifle you are armed with is the most accurate in the world. If it gets dirty or rusty it will deteriorate in its accuracy and working efficiency, and no subsequent care will restore it to its original condition. **The most important part of the rifle to keep clean is the bore.** If, after firing, the bore is left dirty over night, it will be badly rusted in the morning; therefore your rifle must be cleaned not later than the evening of the day on which it was fired. The fouling of the blank cartridge is as dangerous to the bore as the fouling of the ball cartridge.

Never attempt to polish any part that is blued. If rust appears, remove by rubbing with oil. Never use emery paper,

pomade, or any preparation that cuts or scratches, to clean any part of the rifle.

To beautify and preserve the stock rub with raw linseed oil. The use of any other preparation on the stock is strictly forbidden.

Always handle your rifle with care. Don't throw it around as though it were a club. Don't stand it up against anything so that it rests against the front sight. Don't leave a stopper or a rag in the bore; it will cause rust to form at that point. It may also cause the gun barrel to burst if a shot is fired before removing it.

Guard the sights and muzzle carefully from any blow that might injure them. The front sight cover should always be on the rifle except when rifle is being fired. This is especially necessary to protect the front sight while rifle is being carried in scabbard by a mounted man.

In coming to the "order arms," lower the piece gently to the ground.

When there is a cartridge in the chamber the piece is always carried locked. In this position the safety lock should be kept turned fully to the right, since if it be turned to the left nearly to the "ready" position and the trigger be pulled, the rifle will be discharged when the safety lock is turned to the "ready" position at any time later on.

Cartridges can not be loaded from the magazine unless the bolt is drawn fully to the rear. When the bolt is closed, or only partly open, the cut-off may be turned up or down as desired, but if the bolt is drawn fully to the rear, the magazine can not be cut off unless the top cartridge or the follower be pressed down slightly and the bolt pushed forward so that the cut-off may be turned "off."

In the case of a misfire, don't open the bolt immediately, as it may be a hangfire. Misfires are often due to the fact that the bolt handle was not fully pressed down. Sometimes in pulling the trigger the soldier raises the bolt handle without knowing it.

Unless otherwise ordered, arms will be unloaded before being taken to quarters or tents, or as soon as the men using them are relieved from duty.

Keep the working parts oiled.

In every troop there should be at least one copy of the Manual of the Ordnance Department entitled "Description and Rules for the Management of the U. S. Magazine Rifle." This manual gives the name and a cut of every part of the rifle, explains its use, shows how to take the rifle apart and care for the same, and also gives much other valuable and interesting information.

Section 3. Cleaning the rifle.

"Cleaning the rifle.—(*a*) The proper care of the bore requires conscientious, careful work, but it pays well in the attainment of reduced labor of cleaning, prolonged accuracy life of the barrel, and better results in target practice. Briefly stated, the care of the bore consists in removing the fouling, resulting from firing, to obtain a chemically clean surface, and in coating this surface with a film of oil to prevent rusting. The fouling which results from firing is of two kinds—one, the products of combustion of the powder; the other, cupro-nickel scraped off (under the abrading action of irregularities or grit in the bore). Powder fouling, because of its acid reaction, is highly corrosive; that is, it will induce rust and must be removed. Metal fouling of itself is inactive, but may cover powder fouling and prevent the action of cleaning agents until removed, and when accumulated in noticeable quantities it reduces the accuracy of the rifle.

(*b*) Powder fouling may be readily removed by scrubbing with hot soda solution, but this solution has no effect on the metal fouling of cupro-nickel. It is necessary, therefore, to remove all metal fouling before assurance can be had that all powder fouling has been removed and that the bore may be safely oiled. Normally, after firing a barrel in good condition the metal fouling is so slight as to be hardly perceptible. It is merely a smear of infinitesimal thickness, easily removed by solvents of cupro-nickel. However, due to pitting, the presence of dust, other abrasives, or to accumulation, metal fouling may occur in clearly visible flakes or patches of much greater thickness, much more difficult to remove.

(*c*) In cleaning the bore after firing it is well to proceed as follows: Swab out the bore with soda solution (subparagraph *f*) to remove powder fouling. A convenient method is to insert the muzzle of the rifle into the can containing the soda solution

and, with the cleaning rod inserted from the breech, pump the barrel full a few times. Remove and dry with a couple of patches. Examine the bore to see that there are in evidence no patches of metal fouling which, if present, can be readily detected by the naked eye, then swab out with the swabbing solution—a dilute metal-fouling solution (subparagraph *j*). The amount of swabbing required with the swabbing solution can be determined only by experience, assisted by the color of the patches. Swabbing should be continued, however, as long as the wiping patch is discolored by a bluish-green stain. Normally a couple of minutes' work is sufficient. Dry thoroughly and oil.

(*d*) The proper method of oiling a barrel is as follows: Wipe the cleaning rod dry; select a clean patch and thoroughly saturate it with sperm oil or warmed cosmic, being sure that the cosmic has penetrated the patch; scrub the bore with the patch, finally drawing the patch smoothly from the muzzle to the breech, allowing the cleaning rod to turn with the rifling. The bore will be found now to be smooth and bright so that any subsequent rust and sweating can be easily detected by inspection.

(*e*) If patches of metal fouling are seen upon visual inspection of the bore the standard metal fouling solution prepared as hereinafter prescribed must be used. After scrubbing out with the soda solution, plug the bore from the breech with a cork at the front end of the chamber or where the rifling begins. Slip a 2-inch section of rubber hose over the muzzle down to the sight and fill with the standard solution to at least one-half inch above the muzzle of the barrel. Let it stand for 30 minutes, pour out the standard solution, remove hose and breech plug, and swab out thoroughly with soda solution to neutralize and remove all trace of ammonia and powder fouling. Wipe the barrel clean, dry, and oil. With few exceptions, one application is sufficient, but if all fouling is not removed, as determined by careful visual inspection of the bore and of the wiping patches, repeat as described above.

(*f*) After properly cleaning with either the swabbing solution or the standard solution, as has just been described, the bore should be clean and safe to oil and put away, but as a measure of safety a patch should always be run through the bore on the next day and the bore and wiping patch examined

to insure that cleaning has been properly accomplished. The bore should then be oiled, as described above.

(*g*) If the swabbing solution or the standard metal-fouling solution is not available, the barrel should be scrubbed, as already described, with the soda solution, dried, and oiled with a light oil. At the end of 24 hours it should again be cleaned, when it will usually be found to have "sweated"; that is, rust having formed under the smear of metal fouling where powder fouling was present, the surface is puffed up. Usually a second cleaning is sufficient, but to insure safety it should be again examined at the end of a few days, before final oiling. The swabbing solution should always be used, if available, for it must be remembered that each puff when the bore "sweats" is an incipient rust pit.

(*h*) A clean dry surface having been obtained, to prevent rust it is necessary to coat every portion of this surface with a film of neutral oil. If the protection required is but temporary and the arm is to be cleaned or fired in a few days, sperm oil may be used. This is easily applied and easily removed, but has not sufficient body to hold its surface for more than a few days. If rifles are to be prepared for storage or shipment, a heavier oil, such as cosmic, must be used.

(*i*) In preparing arms for storage or shipment they should be cleaned with particular care, using the metal-fouling solution as described above. Care should be taken, insured by careful inspection on succeeding day or days, that the cleaning is properly done and all traces of ammonia solution removed. The bore is then ready to be coated with cosmic. At ordinary temperatures cosmic is not fluid. In order, therefore, to insure that every part of the surface is coated with a film of oil the cosmic should be warmed. Apply the cosmic first with a brush; then, with the breech plugged, fill the barrel to the muzzle, pour out the surplus, remove the breechblock, and allow to drain. It is believed that more rifles are ruined by improper preparation for storage than from any other cause. If the bore is not clean when oiled—that is, if powder fouling is present or rust has started—a half inch of cosmic on the outside will not stop its action, and the barrel will be ruined. Remember that the surface must be perfectly cleaned before the heavy oil is applied. If the instructions as given above

are carefully followed, arms may be stored for years without harm.

(*f*) Preparation of solutions:

Soda solution.—This should be a saturated solution of sal soda (bicarbonate of soda). A strength of at least 20 per cent is necessary. The spoon referred to in the following directions is the model 1910 spoon issued in the mess outfit.

Sal soda, one-fourth pound, or four (4) heaping spoonfuls.

Water, 1 pint or cup, model of 1910, to upper rivets.

The sal soda will dissolve more readily in hot water.

Swabbing solution.—Ammonium persulphate, 60 grains, one-half spoonful smoothed off.

Ammonia, 28 per cent, 6 ounces, or three-eighths of a pint, or 12 spoonfuls.

Water, 4 ounces, or one-fourth pint, or 8 spoonfuls.

Dissolve the ammonium persulphate in the water and add the ammonia. Keep in tightly corked bottle; pour out only what is necessary at the time, and keep the bottle corked.

Standard metal fouling solution.—Ammonium persulphate, 1 ounce, or 2 medium heaping spoonfuls.

Ammonium carbonate, 200 grains, or 1 heaping spoonful.

Ammonia, 28 per cent, 6 ounces, or three-eighths pint, or 12 spoonfuls.

Water, 4 ounces, or one-fourth pint, or 8 spoonfuls.

Powder the persulphate and carbonate together, dissolve in the water and add the ammonia; mix thoroughly and allow to stand for one hour before using. It should be kept in a strong bottle, tightly corked. The solution should not be used more than twice, and used solution should not be mixed with unused solution, but should be bottled separately. The solution, when mixed, should be used within 30 days. Care should be exercised in mixing and using this solution to prevent injury to the rifle. An experienced noncommissioned officer should mix the solution and superintend its use.

Neither of these ammonia solutions have any appreciable action on steel when not exposed to the air, but if allowed to evaporate on steel they attack it rapidly. Care should, therefore, be taken that none spills on the mechanism and that the barrel is washed out promptly with soda solution. The first application of soda solution removes the greater portion of the

powder fouling and permits a more effective and economical use of the ammonia solution. These ammonia solutions are expensive and should be used economically.

(*k*) It is a fact recognized by all that a highly polished steel surface rusts much less easily than one which is roughened; also that a barrel which is pitted fouls much more rapidly than one which is smooth. Every effort, therefore, should be made to prevent the formation of pits, which are merely enlarged rust spots, and which not only affect the accuracy of the arm but increase the labor of cleaning.

(*l*) The chambers of rifles are frequently neglected because they are not readily inspected. Care should be taken to see that they are cleaned as thoroughly as the bore. A roughened chamber delays greatly the rapidity of fire, and not infrequently causes shells to stick.

(*m*) A cleaning rack should be provided for every barrack. Rifles should always be cleaned from the breach, thus avoiding possible injury to the rifling at the muzzle, which would affect the shotting adversely. If the bore for a length of 6 inches at the muzzle is perfect, a minor injury near the chamber will have little effect on the accuracy of the rifle. The rifle should be cleaned as soon as the firing for the day is completed. The fouling is easier to remove then, and if left longer it will corrode the barrel.

(*n*) The principles as outlined above apply equally well for the care of the barrel of the automatic pistol. Special attention should be paid to cleaning the chamber of the pistol, using the soda solution. It has been found that the chamber pits readily if it is not carefully cleaned, with the result that the operation of the pistol is made less certain." (*Par. 134, Small Arms Firing Manual, 1913.*)

Section 4. Uniforms.

Uniforms and clothing issued to enlisted men must not be sold, pawned, loaned, given away, lost, or damaged through neglect or carelessness. Any soldier who violates this rule may be tried by a military court and punished.

All uniforms and articles of clothing issued to enlisted men, whether or not charged on their clothing allowance, remain the property of the United States and do not become the property

of the soldier either before or after discharge from the service. Under the law a soldier honorably discharged from the Army of the United States is authorized to wear his uniform from the place of his discharge to his home within three months after the date of such discharge. To wear the uniform after three months from the date of such discharge renders such person liable to fine or imprisonment, or both.

The **dress uniform** dismounted (the blue uniform) consists of the dress cap, dress coat, dress trousers, and russet-leather shoes. The straight, standing, military, white linen collar, showing no opening in front, is always worn with this uniform, with not to exceed one-half inch showing above the collar of the coat. Turndown, piccadilly, or roll collars are not authorized.

When under arms, white gloves and the garrison belt are worn. The dress uniform mounted is the same as dismounted, except that riding gloves, leggings, and spurs are worn, and the saddle cloth, showing regimental number and troop letter, is placed over the saddle blanket.

The **full-dress uniform** is the same as the dress uniform, with the breast cord added.

The **service uniform** is either cotton (summer) or woolen (winter) olive drab.

For duty in the field it consists of the service hat, with cord sewed on, service coat or sweater, service breeches, olive-drab flannel shirt, leggings, russet-leather shoes, spurs, riding gloves, and identification tag. In cold weather olive-drab woolen gloves may be prescribed.

In warm weather the coat, sweater, and riding gloves may be omitted when authorized by the commanding officer.

When not in the field, the service cap is worn instead of the campaign hat. Under arms, dismounted, white gloves and the garrison belt (or russet-leather belt and cartridge box) are worn.

Spurs and riding gloves are worn on all mounted duty or when on mounted pass.

Wear the exact uniform prescribed by your commanding officer, whether you are on duty or off duty.

Never wear a mixed uniform as, for instance, a part of the service uniform with the blue uniform.

Never wear any part of the uniform with civilian clothes. It is very unsoldierly, for example, to wear a civilian overcoat over the uniform or to wear the uniform overcoat over a civilian suit.

Keep the uniform clean and neat and in good repair.

Grease spots and dust and dirt should be removed as soon as possible.

Rips and tears should be promptly mended. In taking the field always wear new clothing as it may be some time before you are again supplied, and old clothing on field service goes to pieces rapidly.

Missing buttons and cap and collar ornaments should be promptly replaced.

There is but one correct and soldierly way to wear the cap. Never wear it on the back or side of the head.

The service hat should be worn in the regulation shape, peaked, with four indentations, and with hat cord sewed on. Do not cover it with pen or pencil marks. The chin cord should always be in order and fit for long field service.

Never appear outside your room or tent with your coat or olive-drab shirt unbuttoned or collar of coat unhooked. Chevrons, service stripes, and campaign medals and badges are a part of the uniform and must be worn as prescribed.

When coats are not worn with the service uniform olive-drab shirts are prescribed.

Suspenders must never be worn exposed to view.

Never appear in breeches without leggings.

Leather leggings should be kept clean. Saddle soap should be used to clean *all leather*. Should the shoes, leggings, or leather equipment be soaked by rain or swimming they will not become hard if covered with a light coat of neat's-foot oil applied just before they dry out. All new leather should be oiled before being placed in service. Leather can be preserved for years by the use of saddle soap and neat's-foot oil, but once it becomes hard and cracked nothing will make it serviceable. Canvas leggings should be scrubbed when dirty.

Russet-leather (tan) shoes should be kept clean. Leather cleaned with saddle soap can be polished by rubbing with a flannel cloth.

The overcoat when worn must be buttoned throughout and the collar hooked. When the belt is worn it will be worn outside the overcoat.

Section 5. The service kit.

The service kit is composed of two parts—(*a*) the field kit, which includes everything the soldier wears or carries with him in the field, and (*b*) the surplus kit.

The field kit consists of—

(1) The clothing worn on the person.

(2) Arms and equipment, consisting of—

(*a*) Arms and equipments of all enlisted men (except buglers and members of bands and machine-gun troops):

1 brush and thong.[1]
1 canteen, cavalry.[2]
1 canteen strap, cavalry.[2]
90 cartridges, ball, caliber .30.
21 cartridges, ball, pistol, caliber .45.
1 cartridge belt, caliber .30, cavalry.
1 cartridge-belt suspenders, pair.
1 cup.
1 fork.
1 front-sight cover.
1 gun sling.
1 knife.
2 magazines, pistol, extra.
1 magazine pocket web, double.
1 meat can.
1 oiler and thong case.
1 pistol.
1 pistol holster.
1 pouch for first-aid packet.
1 rifle scabbard.
1 rifle, United States, caliber .30.
1 saber and scabbard, cavalry.
1 saber knot.
1 saber straps, pair.
1 spoon.
1 spurs, pair.
1 spur straps, set.

(*b*) Members of bands and buglers:

1 canteen, cavalry.[2]
1 canteen strap, cavalry.[2]
21 cartridges, ball, pistol, caliber .45.
1 cup.
1 fork.
1 knife.
2 magazines, pistol, extra.

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[1] To be omitted if rifle is provided with spare-part container.

[2] In lieu of these the canteen, model of 1910, with canteen cover, dismounted, may be issued.

[3] One saddle for each troop and the saddles for the 2 color sergeants are to be provided with a guidon stirrup.

1 meat can.
1 pistol belt without saber ring.
1 pistol.
1 pistol holster.
1 pouch for first-aid packet.
1 spoon.
1 spurs, pair.
1 spur straps, set.

(*c*) In addition to (*b*) first sergeant of headquarters troop (drum major) will have:

1 saber and scabbard, cavalry, 2 saber straps.
1 saber knot.

(*d*) For members of machine-gun troops, except that buglers attached to machine-gun troops (only) will have 1 pistol belt without saber ring in lieu of 1 cartridge belt, 1 cartridge-belt suspenders, pair, and 1 magazine pocket, web, double:

1 bolo.
1 bolo scabbard.
1 canteen, cavalry.[1]
1 canteen strap, cavalry.[1]
21 cartridges, ball, pistol, caliber .45.
1 cartridge belt, caliber .30, cavalry.
1 cartridge-belt suspenders, pair.
1 cup.
1 fork.
1 knife.
2 magazines, pistol, extra.
1 magazine pocket, web, double.
1 meat can.
1 pistol.
1 pistol holster.
1 pouch for first-aid packet.
1 spoon.
1 spurs, pair.
1 spur straps, set.

(*e*) Horse equipments for each enlisted man individually mounted on a horse:

1 bridle, cavalry, model of 1909 or 1912, or curb bridle, model of 1902.
1 bridle, watering, if curb bridle model of 1902 is issued.
1 currycomb.
1 halter headstall.
1 halter tie rope.
1 horse brush.
1 lariat.
1 lariat strap.
1 link.
1 nose bag, or feed bag (with grain bag).
1 picket pin.
1 saddle, cavalry, complete.[2]
1 saddlebags, pair.
1 saddle blanket.
1 surcingle.

[1] In lieu of these the canteen, model of 1910, with canteen cover, dismounted, may be issued.

Care of saddlery.

(Cav. Drill Reg. 1916.)

975. The saddlery and equipment must always be cleaned after use. This duty, like the care of the horse, is to be regarded as part of the mounted duty itself; thus a drill is not over until horse, saddlery, arms, and equipments have been put again in condition. According to need, the leather is simply wiped off with a damp sponge or fully taken apart and well soaped and cleaned. In no case must it be soaked in water.

If the soap used does not contain a sufficient amount of free oil the leather must be oiled to keep it pliable. A mixture of one-half neat's-foot oil and one-half mutton tallow, well rubbed in, keeps leather in good condition. Special care is taken to keep the underside of the skirts of the saddle and the parts which do not come in contact with the clothing well oiled. The seat and outside of the skirts will rarely require oil.

Metal parts are kept clean and free from rust; they may require oiling if not regularly used.

The saddle blanket must be kept clean and soft and free from wrinkles. After use it must be dried and then well shaken (unfolded). It must never be folded wet and left thus with the saddle. Provision will be made in the saddle room or stables for hanging it up to dry.

When necessary the blanket should be thoroughly cleansed by repeated immersions in tepid soapsuds and hung over a pole or line to dry without wringing or pressing it.

Section 6. The surplus kit.

The surplus kit for each man consists of—

1 breeches, pair.
1 drawers, pair.
1 shirt, olive drab.
1 shoes, russet-leather, pair.
2 stockings, pair.
1 undershirt.
1 shoe laces, extra, pair.

Each surplus kit bag contains 1 jointed cleaning rod and case.

Squad leaders are responsible that surplus kit bags are kept in order and fully packed in the field.[1] Men are allowed access to them for the purpose of making substitutions.

The surplus kits are packed in surplus kit bags, one for each squad, one for sergeants, and one for cooks and buglers.

The kit of each man will be packed as follows:

Stockings to be rolled tightly, one pair in the toe of each shoe; shoes placed together, heels at opposite ends, soles outward, wrapped tightly in underwear, and bundle securely tied around the middle by the extra pair of the shoe laces, each bundle to be tagged with the company number of the owner. These individual kits will be packed in the surplus kit bag in two layers of four kits each, the breeches and olive drab shirts to be neatly folded and packed on the top and sides of the layers, the jointed cleaning rod and case, provided for each squad, being attached by the thongs on the inside of the bag.

When overcoats or sweaters are not prescribed to be worn on the person they will be collected into bundles of convenient size and secured by burlap or other suitable material, or will be boxed. They will be marked ready for shipment to be forwarded when required.[1]

Section 7. Assembling equipment.

TO MAKE THE BLANKET ROLL.

Spread the shelter half, triangular part to the right, buttons underneath. Fold triangular part across shelter half, making a rectangle.

Fold blanket through center, parallel to stripes; fold again through center perpendicular to stripes. Lay folded blanket on shelter half, longer side of blanket parallel to and 1 inch from edge of shelter half opposite straps and equidistant from

[1] In campaign or simulated campaign, when an organization is restricted to its prescribed field-train transportation, surplus kits, overcoats, and sweaters are stored on the line of communications or other designated place with the permanent camp equipment of the organization.

sides. Place tent pole, folded, close to and parallel to near edge of blanket, end of pole flush with left side of blanket; pins and tent rope to be similarly placed at right side of blanket, occupying about the same space as pole. Arrange the clothing and toilet articles on right and left sides of blanket, leaving center space clear.

Fold the free portions of the right and left sides of shelter half over the blanket. Fold the far edge of the shelter half 6 inches toward the blanket, making a pocket.

With hands and knees roll the blanket and shelter half toward and into the pocket. Buckle straps around roll, strap buckles on line with shelter half buttons.

ROLL THE OVERCOAT AND SLICKER.

Turn the garment inside out, collar extended, and fold once the long way. Roll tightly from the front edge, making roll the full length of garment.

TO PACK THE McCLELLAN SADDLE.

Put saddle pockets on saddle; fasten straps to cincha rings. Place articles pertaining to the man in near pocket, those pertaining to the horse in off pocket.

The overcoat, slicker, or both, to be strapped on pommel, collar to left.

Blanket roll to be strapped on cantle. Feed bag, if empty, neatly folded on top of roll, "U. S." up. If grain is carried, the grain bag is tied inside the feed bag, which is strapped on top of the pommel roll, above the overcoat or slicker.

Lariat, in uniform coils of about 10-inch diameter, fastened to near cantle ring by lariat strap fastened to one ring and passing through the other; coil secured by two outside straps of saddle pocket flap. To prevent flapping and injuring adjacent troopers and horses the picket pin may be inserted through the saddlebag strap ring, point downward, or it may be placed horizontally under the flap straps of the near saddlebag, point to the rear.

Canteen snapped into off cantle ring, canteen strap passing through handle of cup, except the cup model 1910, which is

McCLELLAN SADDLE.
Full pack, near side.

McCLELLAN SADDLE.
Full pack, off side.

EQUIPMENT ARRANGED FOR INSPECTION.

The arrangement should be uniform in each regiment.

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fitted over the bottom of the canteen, model 1910, inside the cover.

Rifle on near side; saber on off side, attached to pommel ring. The surcingle is buckled over the saddle. The two extra fitted horseshoes, one front and one hind, may be wired, one on bottom of each stirrup, or they may be fastened together with a nail and carried in off saddle pocket. To prevent rust the horseshoe nails should always be well oiled and wrapped in canvas or leather. They are carried in the off saddle pocket.

The two reserve rations, extra ammunition, and other extra articles should be so distributed between the two pockets as to balance the weight on the horse.

CHAPTER III.

RATIONS AND FORAGE.

Section 1. The ration.

A ration is the allowance of food for one man for one day.

In the field there are three kinds of rations issued, as follows:

The *garrison ration* is intended to be issued in kind whenever possible. The approximate net weight of this ration is 4.5 pounds.

The *reserve ration* is the simplest efficient ration, and constitutes the reserve carried for field service. It consists of—

	Ounces.
Bacon	12
Hard bread	16
Coffee, roasted and ground	1.12
Sugar	2.4
Salt	.16
Approximate net weight—pounds	2

The *field ration* is the ration prescribed in orders by the commander of the field forces. It consists of the reserve ration, in whole or in part, supplemented by articles requisitioned or purchased locally or shipped from the rear.

In campaign a command carries as a part of its normal equipment the following rations:

(*a*) On each man: At least two days' reserve rations.

(*b*) In the ration section of the field train, for each man: Two days' field and one day's reserve, and for each animal two days' grain rations.

(c) In the supply train:

Of an infantry division, two days' field and grain rations.

Of a cavalry division, one day's field and grain rations.

In addition to the foregoing, commanders will require each man on the march to carry the unconsumed portion of the day's ration issued the night before for the noonday meal. In the same manner, cavalry and field artillery carry on their horses a portion of their grain ration issued the night before for a noonday feed. Reserve rations are consumed only in case of extreme necessity, when other supplies are not available. They are not to be consumed or renewed without an express order from the officer in command of the troops who is responsible for the provision of supplies, namely, the division commander or other independent-detachment commander. Every officer within the limits of his command is held responsible for the enforcement of this regulation. Reserve rations consumed must be replaced at the first opportunity.

Section 2. Individual cooking.

Sometimes rations for several days are issued to the soldier at one time, and in such cases you should be very careful to so use the rations that they will last you the entire period. If you stuff yourself one day, or waste your rations, you will have to starve later on.

Generally the cooking for the troop will be done by the troop cook, but sometimes every soldier will have to prepare his own meals, using only his field mess kit for the purpose.

The best fire for individual cooking is a small, clear one, or, better yet, a few brisk coals. To make such a fire, first gather a number of sticks about 1 inch in diameter. These should be dry. Dead limbs adhering to a tree are dryer than those picked up from the ground. Split some of these and shave them up into kindling. Dig a trench in the ground, laid with the wind, about a foot long, 4 inches wide, and 6 inches deep. Start the fire in this trench gradually, piling on the heavier wood as the fire grows. When the trench is full of burning wood, allow it a few minutes to burn down to coals and stop blazing high.

Then rest the meat can and cup over the trench and start cooking. Either may be supported, if necessary, with green sticks. If you can not scrape a trench in the soil, build one up out of rocks or with two parallel logs.

The following recipes have been furnished from the office of the Quartermaster General, United States Army:

Coffee.—Fill the cup two-thirds full of water and bring to a boil. Add one heaping spoonful of coffee and stir well, adding one spoonful of sugar if desired. Boil five minutes and then set it to the side of the fire to simmer for about 10 minutes. Then, to clear the coffee, throw in a spoonful or two of cold water. This coffee is of medium strength and is within the limit of the ration if made but twice a day.

Cocoa.—Take two-thirds of a cupful of water, bring to a boil, add one heaping spoonful of cocoa, and stir until dissolved. Add one spoonful of sugar, if desired, and boil for five minutes.

Chocolate.—Take two-thirds of a cupful of water, bring to a boil, add a piece of chocolate about the size of a hickory nut, breaking or cutting it into small pieces and stirring until dissolved. Add one spoonful of sugar, if desired, and boil for five minutes.

Tea.—Take two-thirds of a cupful of water, bring to a boil, add one-half of a level spoonful of tea, and then let it stand or "draw" for three minutes. If allowed to stand longer the tea will get bitter, unless separated from the tea leaves.

MEATS.

Bacon.—Cut slices about five to the inch, three of which should generally be sufficient for one man for one meal. Place in a meat can with about one-half inch of cold water. Let come to a boil and then pour the water off. Fry over a brisk fire, turning the bacon once and quickly browning it. Remove the bacon to lid of meat can, leaving the grease for frying potatoes, onions, rice, flapjacks, etc., according to recipe.

Fresh meat (to fry).—To fry, a small amount of grease (one to two spoonfuls) is necessary. Put grease in the meat can and let come to a smoking temperature, then drop in the steak and, if about one-half inch thick, let fry for about one minute

before turning, depending upon whether it is desired it shall be rare, medium, or well done. Then turn and fry briskly as before. Salt and pepper to taste.

Applies to beef, veal, pork, mutton, venison, etc.

Fresh meat (to broil).—Cut in slices about one inch thick, from half as large as the hand to four times that size. Sharpen a stick or branch of convenient length—say, from two to four feet long—and weave the point of the stick through the steak several times, so that it may be readily turned over a few brisk coals or on the windward side of a small fire. Allow to brown nicely, turning frequently. Salt and pepper to taste. Meat with considerable fat is preferred, though any meat may be broiled in this manner.

Fresh meat (to stew).—Cut into chunks from one-half inch to one inch cubes. Fill cup about one-third full of meat and cover with about one inch of water. Let boil or simmer about one hour, or until tender. Add such fibrous vegetables as carrots, turnips, or cabbage, cut into small chunks, soon after the meat is put on to boil, and potatoes, onions, or other tender vegetables when the meat is about half done. Amount of vegetables to be added, about the same as meat, depending upon supply and taste. Salt and pepper to taste. Applies to all fresh meat and fowls. The proportion of meat and vegetables used varies with their abundance, and fixed quantities can not be adhered to. Fresh fish can be handled as above, except that it is cooked much quicker, and potatoes and onions and canned corn are the only vegetables generally used with it, thus making a chowder. A slice of bacon would greatly improve the flavor. May be conveniently cooked in meat can or cup.

VEGETABLES.

Potatoes (fried).—Take two medium-sized potatoes or one large one (about one-half pound), peel and cut into slices about one-fourth inch thick and scatter well in the meat can in which the grease remains after frying the bacon. Add sufficient water to half cover the potatoes, cover with the lid to keep the moisture in, and let come to a boil for about 15 to 20 minutes. Remove the cover and dry as desired. Salt and pepper to taste. During the cooking the bacon already pre-

pared may be kept on the cover, which is most conveniently placed bottom side up over the cooking vegetables.

Onions (fried).—Same as potatoes.

Potatoes (boiled).—Peel two medium-sized potatoes (about one-half pound) or one large one, and cut in coarse chunks of about the same size—say, 1½-inch cubes. Place in meat can and three-fourths fill with water. Cover with lid and let boil or simmer for 15 or 20 minutes. They are done when easily penetrated with a sharp stick. Pour off the water and let dry out for one or two minutes over hot ashes or light coals.

Potatoes (baked).—Take two medium-sized potatoes (about one-half pound) or one large one cut in half. Lay in a bed of light coals and cover with same and smother with ashes. Do not disturb for 30 or 40 minutes, when they should be done.

Canned tomatoes.—One 2-pound can is generally sufficient for five men.

Stew.—Pour into the meat can one man's allowance of tomatoes and add about two large hardtacks broken into small pieces and let come to a boil. Add salt and pepper to taste, or add a pinch of salt and one-fourth spoonful of sugar.

Or, having fried the bacon, pour the tomatoes into the meat can, the grease remaining, and add, if desired, two broken hardtacks. Set over a brisk fire and let come to a boil.

Or, heat the tomatoes just as they come from the can, adding two pinches of salt and one-half spoonful of sugar, if desired.

Or, especially in hot weather, eaten cold with hard bread, they are very palatable.

Rice.—Take about two-thirds of a cupful of water, bring to a boil, add 4 heaping spoonfuls of rice, and boil until the grains are soft enough to be easily mashed between the fingers (about 20 minutes). Add two pinches of salt and, after stirring, pour off the water and empty rice out on meat can. Bacon grease or sugar may be added.

Corn meal, fine hominy, oatmeal.—Take about one-third of a cupful of water, bring to a boil, add 4 heaping spoonfuls of the meal or hominy, and boil about 20 minutes. Then add about two pinches of salt and stir well.

Dried beans and peas.—Put 4 heaping spoonfuls in about two-thirds of a cupful of water and boil until soft. This generally takes from three to four hours. Add one pinch of

salt. About half an hour before the beans are done add one slice of bacon.

HOT BREADS.

Flapjacks.—Take 6 spoonfuls of flour and one-third spoonful of baking powder and mix thoroughly (or dry mix in a large pan before issue, at the rate of 25 pounds of flour and 3 half cans of baking powder for 100 men). Add sufficient cold water to make a batter that will drip freely from the spoon, adding a pinch of salt. Pour into the meat can, which should contain the grease from fried bacon or a spoonful of butter or fat, and place over medium hot coals sufficient to bake, so that in from 5 to 7 minutes the flapjack may be turned by a quick toss of the pan. Fry from 5 to 7 minutes longer, or until by examination it is found to be done.

Hoecake.—Hoecake is made exactly the same as flapjacks by substituting *corn meal* for *flour*.

Emergency rations.—Detailed instructions as to the manner of preparing the emergency ration are found on the label of each can. Remember that even a very limited amount of bacon or hard bread, or both, consumed with the emergency ration makes it far more palatable, and generally extends the period during which it can be consumed with relish. For this reason it would be better to husband the supply of hard bread and bacon for use with the emergency ration when it becomes evident that the latter must be consumed rather than to retain the emergency ration to the last extremity and force its exclusive use for a longer period than two or three days.

Section 3. The forage ration.

"*1077, Army Regulations.*—The forage ration for a horse is 14 pounds of hay and 12 pounds of oats, corn, or barley, and 3½ pounds of straw (or hay) for bedding; for a Field Artillery horse of the heavy-draft type, weighing 1,300 pounds or over, 17 pounds of hay and 14 pounds of oats, corn, or barley, and 3½ pounds of straw (or hay) for bedding; for a mule, 14 pounds of hay and 9 pounds of oats, corn, or barley, and 3½ pounds of straw (or hay) for bedding. To each animal 3 pounds of bran may be issued in lieu of that quantity of grain.

"The commanding officer may, in his discretion, vary the proportions of the components of the ration (1 pound of grain, 1½ pounds of hay, and 2 pounds of straw being taken as equivalents), and in the field may substitute other recognized articles of forage obtained locally, the variation or the substitution not to exceed the money value of the components of the ration at the contract rates in effect at the time of change.

"*1078, Army Regulations.*—Where grazing is practicable, or when little work is required of the animals, commanding officers will reduce the forage ration. When, on the other hand, conditions demand it, they are authorized to increase the ration, not in excess, however, of savings made."

In the field the authorized allowances must often be reduced and supplemented by grazing and other kinds of food, such as green forage, beans, peas, rice, palay, wheat, and rye. Wheat and rye should be crushed and fed sparingly (about one-fourth of the allowance). For unshelled corn, add about one-quarter weight.

On the march the grain ration is the only forage carried. It consists of 12 pounds of grain for each horse and 9 pounds of grain for each mule. Recourse must be had to grazing if it is not possible to procure long forage in the country traversed.

In campaign a command carries as a part of its normal equipment the following forage:

(*a*) For each draft animal: On each vehicle a *reserve* of one day's grain ration for its draft animals.

(*b*) On animals and vehicles: A portion of their grain ration issued the night before, for a noonday feed.

(*c*) In the ration section of the field train, for each animal, two days' grain rations.

(*d*) In supply train of an Infantry division two days' grain rations, and of a Cavalry division one day's grain ration.

CHAPTER IV.

PERSONAL HYGIENE AND CARE OF THE FEET.

PERSONAL HYGIENE.

History shows that in almost every war many more men die of disease than from wounds received in battle. Much of this disease is preventable and is due either to the ignorance or carelessness of the person who has the disease or of other persons about him. It is a terrible truth that one man who violates any of the great rules of health may be the means of killing many more of his comrades than are killed by the bullets of the enemy.

It is therefore most important that every soldier should learn how to take care of his health when in the field and that he should also insist that his comrades do not violate any of the rules prescribed for this purpose.

A great many diseases are due to germs, which are either little animals or little plants so very small that they can only be seen by aid of the microscope. All diseases caused by germs are "catching." All other diseases are not "catching."

There are only five ways of catching disease:

(*a*) Getting certain germs on the body by touching some one or something which has them on it. Thus, one may catch venereal diseases, smallpox, measles, scarlet fever, chicken pox, mumps, boils, body lice, ringworm, barber's itch, dhobie itch, and some other diseases. Wounds are infected in this manner.

(*b*) Breathing in certain germs which float in the air. In this way one may catch pneumonia, consumption, influenza, diphtheria, whooping cough, tonsilitis, spinal meningitis, measles, and certain other diseases.

(*c*) Taking certain germs in through the mouth in eating or drinking. Dysentery, cholera, typhoid fever, diarrhea, and intestinal worms may be caught in this manner.

(*d*) Having certain germs injected into the body by the bites of insects, such as mosquitoes. fleas, and bedbugs. Malaria, yellow fever, dengue fever, and bubonic plague may be caught in this way.

(*e*) Inheriting the germ from one's parents.

Persons may have these germs sometimes without apparently being sick with any disease. Such persons and persons who are sick with the diseases are a great source of danger to others about them. Germs which multiply in such persons are found in their urine and excretions from the bowels; in discharges from ulcers and abscesses; in the spit or particles coughed or sneezed into the air; in the perspiration or scales from the skin; and in the blood sucked up by biting insects.

Those who have taken care of their health and who have not become weakened by bad habits, exposure, and fatigue are not only less liable to catch disease, but are more apt to recover when taken sick.

Knowing all these things, the soldier can understand the reasons for the following rules and how important it is that they should be carried out by each and every person:

Stay away from persons having "catching" diseases.

If you have any disease, don't try to cure it yourself, but go to the surgeon. Insist that other soldiers do likewise.

Typhoid fever is one of the most dangerous and common camp diseases. Modern medicine has, however, discovered an effective preventative for this disease in the typhoid prophylactic, which renders the person immune from typhoid fever. The treatment consists in injecting into the arm a preventative serum. The injection is given three times at 10-day intervals.

Association with lewd women is dangerous. It may result in disabling you for life. It is the cause of a disease (syphilis) which may be transmitted by a parent to his children. Soldiers with venereal diseases should not use basins or toilet articles used by others, as the germs of these diseases if gotten into the eye very often cause blindness. Likewise, if they use the same drinking cup used by others they may give others the disease.

They should promptly report their trouble to the surgeon, that they may receive the best medical advice and attention.

Should a soldier expose himself to infection by having intercourse with an unknown woman, he should report as soon as possible afterwards to the regimental infirmary for prophylactic treatment, which, if taken within a few hours after intercourse, will prevent to a large degree the liability of contracting any disease.

Cooked germs are dead and therefore harmless. Water, even when clear, may be alive with deadly germs. Therefore, when the conditions are such that the commanding officer orders all drinking water to be boiled, be careful to live up to this order.

Use the latrines and don't go elsewhere to relieve yourself. In open latrines cover your deposit with dirt, as it breeds flies and may also be full of germs.

Flies carry germs from one place to another. Therefore see that your food and mess kit are protected from them.

All slops and scraps of food scattered about camp soon produce bad odors and draw flies. Therefore do your part toward keeping the camp free from disease by carefully depositing such refuse in the pits or cans used for this purpose.

Urinate only in the latrines, or in the cans set out for this purpose, never on the ground around camp, because it not only causes bad smells but urine sometimes contains the germs of "catching" diseases.

Soapy water thrown on the ground soon produces bad odors. Therefore in camps of several days' duration this water should be thrown in covered pits or in cans used for this purpose.

As certain mosquitoes can transmit malaria and yellow fever, use your mosquito bar for this reason as well as for personal comfort.

Keep your mouth clean by brushing your teeth once or twice a day. It helps to prevent the teeth from decaying. Decayed teeth cause toothache. They also lead one to swallow food without properly chewing it, and this leads to stomach troubles of various kinds. Food left around and between the teeth is bad for the teeth and forms good breeding places for germs.

Keep the skin clean. Through the pores of the skin the body gets rid of much waste and poisonous matter. Therefore remove this and keep the pores open by bathing once every day, if possible. If water is scarce, rub the body over with a wet towel. If no water is at hand, take a dry rub. Wash carefully the armpits, between the legs, and under the foreskin, as this will prevent chafing.

The skin protects the sensitive parts underneath from injury and helps to keep out germs. Therefore when blisters are formed don't tear off the skin. Insert a needle under the skin a little distance back from the blister and push it through to the opposite side. Press out the liquid through the holes thus formed. Heat the needle red hot first, with a match or candle, to kill the germs.

When the skin is broken (in cuts and wounds) keep the opening covered with a bandage to keep out germs and dirt; otherwise the sore may fester. Pus is always caused by germs.

Keep your hair short. Long hair and a long beard in the field generally means a dirty head and a dirty face and favors skin diseases, lice, and dandruff.

Don't let any part of the body become chilled, as this very often is the direct cause of diarrhea, dysentery, pneumonia, rheumatism, and other diseases.

Wet clothes may be worn while marching or exercising without bad results, but there is great danger if one rests in wet clothing, as the body may become chilled.

Don't sit or lie or sleep directly on damp ground, as this is sure to chill the body.

When hot or perspiring or when wearing damp clothes, don't remain where a breeze can strike you. You are sure to become chilled.

Every day, if possible, hang your blanket and clothing out to air in the sun; shake or beat them with a small stick. Germs and vermin don't like this treatment, but damp, musty clothing suits them very well. Wash your shirts, underwear, and socks frequently. The danger of blood poisoning from a wound is greatly increased if the bullet passes through dirty clothes.

Ditch your tent as soon as you can, particularly a shelter tent, even if you camp for one night only. Otherwise a little rain may ruin a whole night's rest.

Always prepare your bed before dark. Level off the ground and scrape out a little hollow for your hips. Get some straw or dry grass if possible. Green grass or branches from trees are better than nothing. Sleep on your poncho. This keeps the dampness from coming up from the ground and chilling the body. Every minute spent in making a good bed means about an hour's good rest later on.

Avoid the food and drink found for sale in the cheap stands about camp. The quality is generally bad, and it is often prepared in filthy places by very dirty persons.

The use of intoxicating liquor is particularly dangerous in the field. Its excessive use, even at long intervals, breaks down one's system. Drinking men are more apt to get sick and less liable to get well than are their more sober comrades. If alcohol is taken at all, it is best after the work of the day is over. It should never be taken when the body is exposed to severe cold, as it diminishes the resistance of the body. Hot tea or coffee is much preferable under these circumstances.

CARE OF THE FEET.

A soldier can not march with sore feet, and marching is the main part of an infantryman's daily duty in the field. *All soldiers* should be familiar with the proper methods of caring for the feet. Sore feet are generally due to carelessness, neglect, or ignorance on the part of the soldier.

The most important factor in the care of the feet and the marching ability of the soldier is the shoe. Civilian shoes, particularly light, patent leather, or low shoes, are sure to cause injury and in time will ruin a man's foot. Only the marching shoe issued by the Quartermaster Corps should be worn, and they must be properly fitted to the individual. It will not suffice to order a marching shoe of the same size as one's ordinary civilian shoes, for it must be remembered that a soldier may have to march many miles daily over rough roads and carrying a heavy pack. The pack itself causes the foot to spread out to a larger size, and the rough roads give so much exercise to the muscles of the feet that they swell greatly through the increased blood supply. (For directions as to measuring the foot for the marching shoe, see General Order

No. 26, War Department, 1912, a copy of which should be on hand in each company.)

Do not start out on a march wearing new shoes. This is a frequent cause of sore feet. New shoes should be properly broken in before beginning a march by wearing them for several hours daily for a week before the march, and they should be adapted to the contours of the feet by stretching them with shoe stretchers with adjustable knobs to take the pressure off painful corns and bunions. Such stretchers are issued by the Quartermaster Corps, and there should be one or more pair in every company of infantry. Should this be impracticable, then the following is suggested:

The soldier stands in his new shoes in about 2½ inches of water for about five minutes until the leather is thoroughly pliable and moist; he should then walk for about an hour on a level surface, letting the shoes dry on his feet, to the irregularities of which the leather is thus molded in the same way as it was previously molded over the shoe last. On taking the shoes off a very little neat's-foot oil should be rubbed into the leather to prevent its hardening and cracking.

If it is desired to waterproof shoes at any time, a considerable amount of neat's-foot oil should be rubbed into the leather. Waterproof leather causes the feet of some men to perspire unduly and keeps them constantly soft.

Light woolen or heavy woolen socks will habitually be worn for marching. Cotton socks will not be worn unless specifically ordered by the surgeon. The socks will be large enough to permit free movement of the toes, but not so loose as to permit of wrinkling. Darned socks, or socks with holes in them, will not be worn in marching.

Until the feet have hardened they should be dusted with foot powder, which can be obtained at the regimental infirmary, before each day's march. Clean socks should be worn daily.

As soon as possible after reaching camp after a day of marching the feet should be washed with soap and water, and the soldier should put on a dry pair of socks and his extra pair of shoes from his surplus kit. If the skin is tender, or the feet perspire, wash with warm salt water or alum water, but do not soak the feet a long time, as this, although very comforting at

the time, tends to keep them soft. Should blisters appear on the feet, prick and evacuate them by pricking at the lower edge with a pin which has been passed through the flame of a match and cover them with zinc oxide plaster applied hot. This plaster can be obtained on request at the regimental infirmary. If serious abrasions appear on the feet, or corns, bunions, and ingrowing nails cause trouble, have your name placed on sick report and apply to the surgeon for treatment. Cut the toenails square (fairly close in the middle, but leaving the sides somewhat longer), as this prevents ingrowing nails.

CHAPTER V.

EXTRACTS FROM CAVALRY DRILL REGULATIONS.

UNITED STATES ARMY, 1916.

Section 1. Definitions.

Alignment.—The placing of several troopers or units on the same straight line; also the line on which such adjustment is made.

Assembly.—The grouping **in order**, and in a close-order formation, of the elements of a command. The special arrangement and condition that constitute **order** for each unit are explained in the corresponding part of the text. The purpose of the assembly is to bring about a close-order formation in order.

Base.—The element on which a formation or movement is regulated. The base may be a trooper, two, four, section, platoon, or larger unit. When the base is a single trooper in ranks, he may also be termed the **guide.**

Center.—The middle point or element of a command. If the number of elements considered be even, the right center element will be meant when the center element is referred to.

Column.—A formation in which the elements of a command are placed one behind the other. The elements here referred to may be troopers, twos, fours, sections, platoons, or larger units. When used in these regulations as a **word of command,** without qualifying words indicating the kind of column (as **of twos, of platoons,** etc.), **column** signifies a **column of fours.** In all other cases the word is to be understood in its general sense unless the context indicates the contrary.

Deployment.—An evolution in which the command extends its front, as in forming line from column or in passing from close order to extended order.

Depth.—The space from front to rear of any formation, including the front and rear elements.

Directing leader.—The leader of a subordinate unit who temporarily conducts the march when the commander is not leading in person. A trooper in the rank of a platoon or smaller unit who similarly conducts the march is termed a **directing guide.**

Direction of march.—The direction in which the base of the command in question, whether actually in march or halted, is facing at the instant considered.

Disposition.—The distribution of the elements of a command, and the formations and duties assigned to each for the accomplishment of a common purpose.

Distance.—The space between men or bodies of troops measured in the direction of depth. Distance is measured—mounted, from the croup of the horse in front to the head of the horse in rear; dismounted, from the back of the trooper in front to the breast of the trooper in rear.

Dress.—The act of taking a correct alignment.

Drill.—The exercises and evolutions taught on the drill ground and executed in accordance with definitely prescribed methods.

Echelon.—A body of troops is in *echelon* with reference to another when it is more advanced or less advanced and unmasks or uncovers the other body, wholly or in part; units thus placed are called *echelons.*

Element.—One of the component subdivisions of a command. As used in these regulations the term *element* is a general one and may mean a single trooper, a set of twos, a four, section, platoon, or larger unit, according to the command and formation that are being considered. The expression **elements of the column** refers to the several troopers, fours, platoons, or other units that are placed successively, one behind another, in any column formation.

Evolutions.—Movements by which a command changes its position or passes from one formation to another.

File closers.—Officers or noncommissioned officers placed out of ranks, whose duty it is to supervise the men in ranks and see that the orders of the commander are carried out. For convenience, this term is applied to any man posted as a file closer.

Flank.—The right or left of a command in line or column.

In speaking of the enemy the term right flank or left flank is used to designate the flank that would be so designated by him.

Flank guard.—An element of a command disposed with a view to protecting a flank.

Foragers.—Mounted troopers distributed in line in extended order; also the formation in which the troopers are so distributed.

Formation.—The arrangement of the elements of a command in line, column, or echelon.

Gait.—One of the special movements of the horse, as the walk, the trot, or the gallop.

Gait of march.—The gait at which the base of the command in question is moving at the instant considered.

Horse length.—A term of measurement. For convenience in estimating space, a horse length is considered as 3 yards; by actual measure it is about 8 feet.

Interval.—The lateral space between the elements or fractions of a command. Interval is measured: Mounted, from the left knee of the man at the right of the open space to the right knee of the man at the left of the open space; dismounted, interval is measured on similar principles, but from elbow to elbow.

Line.—A formation in which the different elements are abreast of each other. When the elements are in column the formation is called a line of columns.

Maneuvers.—Operations against an outlined or actual force under a separate commander, who, within the limits of the assumed situation, is free to adopt any formations and make any movements he chooses.

Order.—An indication of the will of the commander in whatever form conveyed. An order may be given orally, by signal, or in any manner that is intelligible to those for whom it is intended. The expression, in order, has no reference to this

definition, but is used to indicate a special arrangement and condition of the elements of a command.

Order, close.—This includes formations in which the intervals and distances between elements are habitually based upon those required for forming the normal line formation of each unit of the formation.

Order, extended.—The formation in which the troopers, or the subdivisions, or both, are separated by intervals or distances greater than in close order.

Pace.—Used with reference to gait, pace signifies the rate of speed of the gait. Used as a unit of measure, pace signifies a step of 30 inches.

Patrol.—A group detached from a command and operating with specific mission, usually related to security or information. The term is ordinarily applied to groups varying in size from two men to a platoon. They are frequently designated by special names connected with their principal mission or their composition; as, **reconnoitering patrols, combat patrols, visiting patrols, officer's patrols.**

Ployment.—An evolution in which the command diminishes its front, as in passing from line to column, or from extended order to close order.

Rally.—The rapid grouping behind the leader of the elements of a command, without reference to their previous situation or formation.

The object of the rally is to reestablish cohesion with a view to immediate action, or to form line in a new direction when the regular method of forming line would be slow or complicated. It is executed in the order of arrival of the elements of the command without regard to their normal order. The formation in which each unit is rallied is fixed in the drill instructions of that unit.

Rank.—Two or more troopers placed side by side.

Scouts.—Individual troopers detached from their commands and operating with a definite mission related to security or information.

Skirmishers.—Dismounted troopers in line in extended order; also the formation in which the troopers are so placed.

Successive formation.—A formation in which the elements take their places successively.

Tactical exercise.—An operation against an outlined or represented enemy whose movements are restricted with a view to illustrating some particular tactical principle.

PART I.—INDIVIDUAL INSTRUCTION.

Section 2. General provisions.

34.[1] Thorough training in the school of the trooper is the basis of efficiency.

35. Short and frequent drills are preferable to long ones, which exhaust the attention of both instructor and recruit.

36. As the instruction progresses, the recruits will be grouped according to proficiency, in order that all may advance as rapidly as their abilities permit. Those who lack aptitude and quickness will be separated from the others and placed under experienced drillmasters.

37. The individual dismounted instruction of the recruit is habitually given by experienced noncommissioned officers, especially selected for that purpose. All such instruction is under the careful personal supervision of a commissioned officer, and in the corresponding mounted instruction it is desirable that the actual instructor be a commissioned officer when this is practicable. All lieutenants will be required to instruct recruits in person sufficiently to acquire skill in such work.

When recruits, upon their arrival at a station, are assigned to their respective troops for training, the captains prescribe and supervise the instruction.

38. The instructor will always maintain a military bearing and by a quiet, firm demeanor, set a proper example to his men. A calm and even temper is indispensable. Unnecessarily loud commands and prolonged explanations are to be avoided.

As the recruits become somewhat proficient in the school of the trooper, the officer superintending the instruction may call upon them in turn to drill the squad in his presence and to correct any errors that may be observed. This will increase

[1] The numbers refer to paragraphs in the Cavalry Drill Regulations, 1916.

their interest; hasten their instruction, and facilitate judgment upon their fitness for the duties of noncommissioned officers.

39. A carefully thought out program of instruction, prepared in advance and based upon the probable time and facilities for instruction that the case in question may present, is essential to economy of time and effort and to systematic, thorough instruction.

40. The preliminary individual instruction, dismounted and mounted, should be carried on during different drill hours of the same days. This preliminary phase should include, in addition to regular drill, instruction in: The elements of discipline; the names of the various parts of the arms and equipment; the proper care of arms, equipment, and clothing; elementary instructions as to the names of those parts of the horse that are frequently referred to at drill and stable duty; grooming; a few simple rules regarding the care of the horse; personal hygiene; and other related subjects.

41. As soon as the instruction shall have advanced so far as to include the few necessary preliminary drills, collective instruction in the school of the squad will be taken up. This instruction may, like the individual instruction, properly be carried on during different hours of the same drill days, in both mounted and dismounted phases. The recruits meanwhile continue their progress in the individual instruction.

42. The progress in mounted collective instruction must be carefully regulated in accordance with the recruit's confidence and skill in the management of his mount, and must progress no faster than the recruit's horsemanship justifies; but this restriction need not affect the dismounted collective instruction, and the latter may properly be carried forward as rapidly as the state of the dismounted individual instruction will permit. By the time the recruit's instruction in equitation has progressed so as to prepare him for mounted drills at the faster gaits, he should have learned the mechanism of all the movements by executing them at a walk. His course of dismounted training should meanwhile have included not only the close-order movements of the squad but the mechanism of extended order, practice in the use of the saber, a little preparatory range practice with the rifle and pistol, and work in the

nature of minor field exercises involving dismounted fire action. He should, during the same period, have learned the mechanism of passing from mounted action to dismounted action and should have acquired familiarity with all commands and signals used in the squad. The recruit will thus ordinarily be ready to enter with reasonable efficiency upon certain phases of the work in the platoon and troop before his individual mounted instruction is completed.

43. There are two kinds of commands:

The **preparatory** command, such as **forward**, indicates the movement that is to be executed.

The command of **execution**, such as **MARCH**, **HALT**, or **ARMS**, causes the execution.

Preparatory commands are distinguished by **boldface type**, those of **execution** by **CAPITALS**.

The **preparatory** command should be given at such an interval of time before the command of **execution** as to admit of being properly understood; the command of **execution** should be given at the instant the movement is to commence.

The preparatory command is enunciated distinctly, with a rising inflection at the end, and in such manner that the command of execution may be more energetic.

On foot, the command of execution is firm in tone and brief.

In mounted movements the preparatory command is usually somewhat prolonged to insure its being heard, and the command of execution is always prolonged.

Commands will be given no louder than is necessary.

Laxness or indifference suggested in the manner of giving a command is certain to result in corresponding carelessness of execution.

44. To revoke a preparatory command, or being at the halt, to begin anew a movement improperly begun: **AS YOU WERE.** Any movement ceases and the former position is resumed.

45. To stay the execution of a movement when marching, for the correction of errors, the commands may be given: 1. **In place**, 2. **HALT.** All halt and stand fast. If executed dismounted, the position of the rifle is not changed. To resume the movement, the commands are: 1. **Resume**; or, 1. **Resume, trot**; or, 1. **Resume, gallop.** 2. **MARCH.** The movement is then completed as if it had not been interrupted.

46. Movements that may be executed toward either flank are explained as toward but one flank, it being necessary to substitute the word "left" for "right," and the reverse, to have the explanation of the corresponding movement toward the other flank. The commands are given for the execution of the movements toward either flank. The substitute word of the command is placed within parentheses.

47. Any movement may be executed either from the halt or when marching unless otherwise prescribed.

Any movement on foot not specially excepted may be executed in double time.

If at a halt, or if marching in quick time, the command **double time** precedes the command of execution.

48. As instructors, officers and noncommissioned officers go wherever their presence is necessary.

49. Before beginning work, the instructor always assures himself that those under his charge are neatly dressed and in proper uniform. At mounted formations he will also require that horses be properly groomed and that equipments be in good condition and adjusted as prescribed.

50. The value of recruit drill as an exercise in teaching discipline must be kept constantly in view by the instructor. No phase of the instruction is of such great ultimate importance.

Section 3. School of the trooper, dismounted.

51. The object of this school is to develop the strength and agility of the trooper, to give him a military bearing, to fix in him the habit of sustained attention and instant obedience, to prepare him for instruction in mounted combat with the saber and pistol, and to train him in dismounted combat with the rifle.

In order to make rapid progress in those exercises which form the basis of instruction of the trooper, it is necessary that the lessons should, as far as practicable, be given individually.

52. *Cautions to instructors.*—The instructor explains briefly each movement, first executing it himself if practicable. He requires the recruits to take the proper positions unassisted

and does not touch them for the purpose of correcting them, except when they are unable to correct themselves. He avoids keeping them too long at the same movement, although each should be understood before passing to another. He exacts by degrees the desired precision and uniformity. Recruits should be allowed to stand at ease frequently. During these pauses the instructor will not be idle, but opportunity will be taken to talk to the men, to encourage them to ask questions, and so to develop their confidence and common sense.

53. During the period devoted to preliminary instruction, without arms, the recruit will be prepared for subsequent instruction with arms by being taught the names of the principal parts of the different weapons and the proper methods of cleaning, disassembling, assembling, and operating the latter.

Physical Training.

54. The physical training of the soldier must receive due attention. Its direct results are to increase the soldier's strength, agility, and endurance, and it has indirect results of far-reaching value in connection with discipline and morale. It should begin with his first instruction as a recruit and be continued throughout his entire enlistment. The methods prescribed in the authorized Manual of Physical Training will be followed with a view to making the soldier's development thorough and well balanced, and to prevent the instruction from becoming unnecessarily tedious and monotonous.

55. In the earlier phases of the recruit instruction, and under temporary conditions that do not favor the carrying out of a more comprehensive scheme of training, special attention will be given to the setting-up exercises. Running, jumping, and swimming are phases of training of special importance to the soldier.

Individual Instruction Without Arms.

56. For this instruction a few recruits, usually not exceeding 3 or 4, are placed (as a squad) in single rank, facing to the front.

57. To teach the recruits how to form in ranks the instructor will first place them in single rank, arranged according to height, the tallest man on the right, with intervals of about 4 inches between men, and will explain that the object of these intervals is to give freedom of movement in marching and in the use of the rifle in ranks. He will then direct each man singly to place the palm of the left hand on the hip, fingers pointing downward, and draw attention to the fact that the indicated interval of about 4 inches may be verified by each man so placing himself that his right arm, when hanging naturally at his side, touches the elbow of the man on his right. When this is understood, he will cause the recruits to fall out and successively to place themselves as before, each man verifying his interval by causing his right arm to touch the left elbow of the man on his right, the latter's hand being on his hip, as already explained. He will then explain that at the command **FALL IN** the men will, beginning with the right trooper, successively and quickly take their places in rank, each man placing the left hand at the hip as above and dropping his hand to his side as soon as the man on his left has the proper interval.

58. The recruits having had sufficient instruction to understand how to form by command, the instructor commands: **FALL IN.**

The men assemble as prescribed in par. 57, each taking the position of attention as described below.

As soon as the recruits have had sufficient preliminary instruction they will habitually be formed as regularly prescribed for a squad.

POSITION OF THE TROOPER, OR ATTENTION (DISMOUNTED).

59. Heels on the same line and as near each other as the conformation of the man permits.

Feet turned out equally and forming an angle of about 45°.

Knees straight without stiffness.

Hips level and drawn back slightly; body erect and resting equally on hips; chest lifted and arched; shoulders square and falling equally.

Arms and hands hanging naturally, thumb along the seam of the breeches.

Head erect and squarely to the front, chin drawn in so that the axis of the head and neck is vertical; eyes to the front.

Weight of the body resting equally upon the heels and balls of the feet.

THE RESTS.

60. Being at a halt, the commands are: **FALL OUT; REST; AT EASE;** and 1. **Parade,** 2. **REST.**

At the command **fall out,** the men may leave the ranks, but are required to remain in the immediate vicinity. They resume their former places, at attention, at the command **fall in.**

At the command **rest,** each man keeps one foot in place, but is not required to preserve silence or immobility.

At the command **at ease,** each man keeps one foot in place and is required to preserve silence, but not immobility.

1. **Parade,** 2. **REST.** Carry the right foot 6 inches straight to the rear, left knee slightly bent; clasp the hands, without constraint, in front of the center of the body, fingers joined, left hand uppermost, left thumb clasped by the thumb and forefinger of the right hand; preserve silence and steadiness of position.

61. Being in march, at the command: 1. **Route order,** 2. **MARCH;** or 1. **At ease,** 2. **MARCH,** the men keep their places in ranks, but are not required to keep the step; at **route order,** they are not required to preserve silence. If halted from **route order,** the men stand **at rest;** if halted from **at ease,** they remain at ease.

Marching at **route order** or **at ease,** rifles are carried at will, the muzzles elevated.

62. To resume the attention: 1. **Squad,** 2. **ATTENTION.**

If at a halt, the men take the position of the trooper, dismounted (par. 59). If marching, the cadenced step in quick time is resumed, and rifles, if carried, are brought to the right shoulder.

63. To dismiss the squad: **DISMISSED.**

EYES RIGHT OR LEFT.

64. 1. **Eyes,** 2. **RIGHT,** 3. **FRONT.**

At the command **right,** turn the head to the right oblique, eyes fixed on the line of eyes of the man in, or supposed to be in, the same rank. At the command **front,** turn the head and eyes to the front.

FACINGS.

65. To the flank: 1. **Right,** 2. **FACE.**

Raise slightly the left heel and right toe; face to the right, turning on the right heel, assisted by a slight pressure on the ball of the left foot; place the left foot by the side of the right. Left face is executed on the left heel in the corresponding manner.

66. To the rear: 1. **About,** 2. **FACE.**

Carry the toe of the right foot about a half foot length to the rear and slightly to the left of the left heel without changing the position of the left foot; face to the rear, turning to the right on the left heel and right toe; place the right heel by the side of the left.

67. 1. **Hand,** 2. **SALUTE.**

Raise the right hand smartly till the tip of the forefinger touches the lower part of the headdress above the right eye, thumb and fingers extended and joined, palm to the left, forearm inclined at about 45°, hand and wrist straight; at the same time look toward the person saluted. (**TWO**), Drop the arm smartly by the side. The salute for officers is the same (Fig. 1).

FIG. 1, par. 67.

STEPS AND MARCHES.

68. All steps and marchings executed from a halt, except **right step,** begin with the left foot.

69. The length of the full step in **quick time** is 30 inches, measured from heel to heel, and the cadence is at the rate of 120 steps per minute.

The length of the full step in double time is 36 inches; the cadence is at the rate of 180 steps per minute.

The instructor, when necessary, indicates the cadence of the step by calling one, two, three, four, or left, right, the instant the left and right foot, respectively, should be planted.

70. All steps and marchings and movements involving march are executed in quick time unless the squad be marching in double time, or double time be added to the command; in the latter case double time is added to the preparatory command.

Example: 1. Forward, double time, 2. MARCH.

71. It should be explained to the recruits that in collective drills and exercises one of the troopers, termed the guide, habitually has to follow a leader or direct himself upon some designated objective, the other troopers regulating their march so as, in line, to march abreast of the guide, maintaining their approximate intervals. The necessity, in this connection, for learning to march steadily in a given direction without wavering from side to side should further be pointed out. Each recruit should then be practiced individually in marching upon a designated objective, selecting for that purpose two points of direction on the straight line that passes through the trooper and the objective and keeping constantly in the prolongation of that line. When the objective is sufficiently distinct it should be taken as one of the points of direction and another point in line with the trooper and the objective, and either nearer or more distant than the latter be selected as a second point to fix the direction of march.

QUICK TIME AND DOUBLE TIME.

72. Being at a halt, to march forward in quick time: 1. Forward, 2. MARCH.

At the command forward, shift the weight of the body to the right leg, left knee straight.

At the command march, move the left foot smartly straight forward 30 inches from the right, sole near the ground, and plant it without shock; next, in like manner, advance the right foot and plant it as above; continue the march. The arms swing naturally.

73. Being at a halt, or in march in quick time, to march forward in double time: 1. **Forward, double time,** 2. **MARCH.**

If at a halt, at the first command shift the weight of the body to the right leg. At the command **march,** raise the forearms, fingers closed, to a horizontal position along the waist line, take up an easy run with the step and cadence of double time, allowing a natural swinging motion to the arms.

If marching in quick time, at the command **MARCH,** given as either foot strikes the ground, take one step in quick time and then step off in double time.

74. To resume the quick time: 1. **Quick time,** 2. **MARCH.**

At the command **march,** given as either foot strikes the ground, advance and plant the other foot in double time; resume the quick time, dropping the hands by the sides.

TO MARK TIME.

75. Being in march: 1. **Mark time,** 2. **MARCH.**

At the command **march,** given as either foot strikes the ground, advance and plant the other foot; bring up the foot in rear and continue the cadence by alternately raising each foot about 2 inches and planting it on line with the other.

Being at a halt, at the command **march,** raise and plant the feet as described above.

THE HALF STEP.

76. 1. **Half step,** 2. **MARCH.**

Take steps of 15 inches in quick time, 18 inches in double time.

77. Forward, half step, halt, and **mark time** may be executed one from the other in quick or double time.

To resume the full step from half step or mark time: 1. **Forward,** 2. **MARCH.**

SIDE STEP.

78. Being at a halt or mark time: 1. **Right (left) step,** 2. **MARCH.**

Carry and plant the right foot 15 inches to the right; bring the left foot beside it and continue the movement in the cadence of quick time.

The side step is used for short distances only and is not executed in double time.

If at order arms, the side step is executed at trail without other command.

BACK STEP.

79. Being at a halt or mark time: 1. **Backward,** 2. **MARCH.**

Take steps of 15 inches straight to the rear.

The back step is used for short distances only and is not executed in double time.

If at order arms, the back step is executed at trail without other command.

TO HALT.

80. To stop the march in quick or double time: 1. **Squad,** 2. **HALT.**

At the command **halt,** given as either foot strikes the ground, plant the other foot as in marching; raise and place the rear foot by the side of the other. If in double time, drop the hands by the sides.

TO MARCH BY THE FLANK.

81. Being in march: 1. **By the right (left) flank,** 2. **MARCH.**

At the command **march,** given as the right foot strikes the ground, advance and plant the left foot, then face to the right in marching, and step off in the new direction with the right foot.

This movement is not executed by signal except in foragers.

TO MARCH TO THE REAR.

82. Being in march: 1. **To the rear,** 2. **MARCH.**

At the command **march,** given as the right foot strikes the ground, advance and plant the left foot, turn to the right-about on the balls of both feet, and immediately step off with the left foot.

If marching in double time, turn to the right-about, taking four steps in place, keeping the cadence, and then step off with the left foot.

This movement is not executed by **signal** except in **foragers.**

CHANGE STEP.

83. Being in march: 1. **Change step,** 2. **MARCH.**

At the command **march,** given as the right foot strikes the ground, advance and plant the left foot, plant the toe of the right foot near the heel of the left, and step off with the left foot.

The change on the right foot is similarly executed, the command **MARCH** being given as the left foot strikes the ground.

TO COUNT FOURS.

84. Being in line, at the command, **COUNT FOURS,** all the troopers in the rank except the right trooper execute **eyes right** and, beginning on the right, count successively 1, 2, 3, 4. Each turns his head and eyes to the front as he counts.

Fours may be counted at the halt or marching, mounted or dismounted, in line or in column of twos or troopers. In counting fours in column of twos or troopers the elements count off successively from front to rear in the column and from right to left in each two. **Eyes right** is not executed when counting fours from column of twos or troopers.

TO TAKE INTERVALS AND DISTANCES.

85. Being in line at a halt: 1. **Take intervals, to the right (left),** 2. **MARCH,** 3. **Squad,** 4. **HALT.**

At the command **march,** all face to the right and the leading trooper steps off; the other men step off in succession, each following the preceding trooper at four paces.

At the command **halt,** given when all have their intervals, all halt and face to the front.

86. Being at intervals, to assemble the squad: 1. **Assemble to the right (left)**, 2. **MARCH.** The trooper on the right stands fast. The other troopers face to the right, close by the shortest line and face to the front.

87. Being in line at a halt and fours having been counted: 1. **Take distance**, 2. **MARCH**, 3. **Squad**, 4. **HALT.**

At the command **march**, No. 1 moves straight to the front; Nos. 2, 3, and 4 in the order named, move straight to the front, each stepping off so as to follow the preceding man at 4 paces. The command **halt** is given when all have their distances.

If there be more than one No. 1, all the Nos. 1 move forward together, guiding on the right trooper. The same principle applies to the other numbers.

88. The normal interval and distance of 4 paces indicated, respectively, in pars. 34 and 36, may be increased or diminished by adding to the corresponding preparatory command the indication of the interval or distance desired; thus: 1. **Take interval to the right at 1 pace**, 2. **MARCH**, etc.; 1. **Take distance, at 2 paces**, 2. **MARCH**, etc.

89. Being at distances, to assemble the squad: 1. **Assemble**, 2. **MARCH.**

No. 1 of the front rank stands fast; the other numbers move forward to their proper places in line.

Individual Instruction with Arms.

MANUAL OF THE RIFLE.

90. When the recruit has made fair progress in the instruction without arms, including that required by par. 53, he is taught the manual of arms. Instruction without arms and that with arms alternate.

91. The following rules govern the carrying of the rifle:

First. The rifle is not carried with cartridges in either the chamber or the magazine except when specifically ordered. When so loaded, or supposed to be loaded, it is habitually carried locked; that is, with the **safety lock** turned to the "safe." At all other times it is carried unlocked, with the trigger pulled.

Second. Whenever troops are formed under arms, rifles are immediately inspected at the commands: 1. **Inspection,** 2. **ARMS;** 3. **Order (right shoulder, port),** 4. **ARMS.**

A similar inspection is made immediately before dismissal.

If cartridges are found in the chamber or magazine they are removed and placed in the belt.

Third. The cut-off is kept turned "off" except when cartridges are actually used.

Fourth. **Fall in** is executed with the rifle at the order arms. **Fall out, rest,** and **at ease** are executed as without arms. On resuming **attention** the position of order arms is taken.

Fifth. If at the order, unless otherwise prescribed, the rifle is brought to the right shoulder at the command **march,** the three motions corresponding with the first three steps. Movements may be executed at **the trail** by prefacing the preparatory command with the words **at trial,** as, 1. **At trail, forward,** 2. **MARCH; the trail** is taken at the command **march.**

When the facings, alignments, open and close ranks, taking interval, and assemblings are executed from the order, raise the rifle to the trail while in motion and resume the order on halting.

FIG. 2, par. 92.

Sixth. The rifle is brought to the order on halting. The execution of the order begins when the halt is completed.

Seventh. A disengaged hand in double time is held as when without arms.

92. The following rules govern the execution of the manual of arms:

First. In all positions of the left hand at the balance (center of gravity) the thumb clasps the rifle; the sling is included in the grasp of the hand. (Figs. 6, 12.)

Second. In all positions of the rifle "diagonally across the body" the position of the rifle, left arm, and hand are the same as in port arms. (Fig. 6.)

Third. In resuming the order from any position in the manual, the motion next to the last concludes with the butt of the rifle about 8 inches from the ground, barrel to the rear, the left hand above and near the right, steadying the rifle,

fingers extended and joined, forearm and wrist straight and inclining downward, all fingers of the right hand grasping the rifle. To complete the order, lower the rifle gently to the ground with the right hand, drop the left quickly by the side, and take the position of order arms. (Fig. 2.)

Allowing the rifle to drop through the right hand to the ground, or other similar abuse of the arm to produce effect in executing the manual, is prohibited.

Fourth. The cadence of the motions is that of quick time; the recruits are first required to give their whole attention to the details of the motions, the cadence being gradually acquired as they become accustomed to handling their rifles.

Fifth. The manual is taught at a halt and the movements are for the purpose of instruction, divided into motions and executed in detail; in this case the command of **execution** determines the prompt execution of the first motion, and the commands, **two, three, four,** that of the other motions.

FIG. 3, par. 93.

To execute the movements in detail, the instructor first cautions: **By the numbers;** all movement divided into motions are then executed as above explained until he cautions: **Without the numbers;** or commands movements other than those in the manual of arms.

FIG. 4, par. 93.

Sixth. Whenever circumstances require, the regular positions of the manual of arms and the firings may be ordered without regard to the previous position of the rifle.

Under exceptional conditions of weather or fatigue the rifle may be carried in any manner directed.

93. Position of order arms, standing: The butt rests evenly on the ground, barrel to the rear, toe of the butt on a line with toe of, and touching, the right shoe, arms and hands hanging naturally, right hand holding the rifle between the thumb and fingers.

94. Being at order arms: 1. Present, 2. ARMS.

With the right hand carry the rifle in front of the center of the body, barrel to the rear and vertical, grasp it with the left hand at the balance, forearm horizontal and resting against the body. **(TWO)** Grasp the small of the stock with the right hand. (Fig. 5.)

FIG. 5, par. 94.

95. Being at order arms: 1. Port, 2. ARMS.

With the right hand raise and throw the rifle diagonally across the body, grasp it smartly with both hands; the right, palm down, at the small of the stock; the left, palm up, at the balance; barrel up, sloping to the left and crossing opposite the junction of the neck with the left shoulder; right forearm horizontal; left forearm resting against the body; the rifle in a vertical plane parallel to the front. (Fig. 6.)

FIG. 6, par. 95.

96. Being at present arms: 1. Port, 2. ARMS.

Carry the rifle diagonally across the body and take the position of port arms.

97. Being at port arms: 1. Present, 2. ARMS.

Carry the rifle to a vertical position in front of the center of the body and take the position of present arms.

98. Being at present or port arms: 1. Order, 2. ARMS.

Let go with the right hand; lower and carry the rifle to the right with the left hand; regrasp it with the right hand just above the lower band; let go with the left hand, and take the next to the last position in coming to the order. **(TWO)** Complete the order.

99. Being at order arms: 1. Right shoulder, 2. ARMS.

With the right hand raise and throw the rifle diagonally across the body; carry the right hand quickly to the butt, embracing it, the heel between the first two fingers. **(TWO)** Without changing the grasp of the right hand, place the rifle

on the right shoulder, barrel up and inclined at an angle of about 45° from the horizontal, trigger guard in the hollow of the shoulder, right elbow near the side, the rifle in a vertical plane perpendicular to the front; carry the left hand, thumb, and fingers extended and joined, to the small of the stock, tip of the forefinger touching the cocking piece, wrist straight and elbow down. **(THREE)** Drop the left hand by the side. (Fig. 7.)

FIG. 7, par. 99.

100. Being at right shoulder arms: 1. Order, 2. ARMS.

Press the butt down quickly and throw the rifle diagonally across the body, the right hand retaining the grasp of the butt. **(TWO)**, **(THREE)** Execute order arms as described from port arms.

101. Being at port arms: 1. Right shoulder, 2. ARMS.

Change the right hand to the butt. **(TWO)**, **(THREE)** As in right shoulder arms from order arms.

102. Being at right shoulder arms: 1. Port, 2. ARMS.

Press the butt down quickly and throw the rifle diagonally across the body, the right hand retaining its grasp of the butt. **(TWO)** Change the right hand to the small of the stock.

103. Being at right shoulder arms: 1. Present, 2. ARMS.

Execute port arms. **(THREE)** Execute present arms.

104. Being at present arms: 1. Right shoulder, 2. ARMS.

Execute port arms. **(TWO)**, **(THREE)**, **(FOUR)**. Execute right shoulder arms as from port arms.

105. Being at port arms: 1. Left shoulder, 2. ARMS.

Carry the rifle with the right hand and place it on the left shoulder, barrel up, trigger guard in the hollow of the shoulder; at the same time grasp the butt with the left hand, heel between first and second fingers, thumb and fingers closed on the stock. **(TWO)** Drop the right hand by the side.

Left shoulder arms may be ordered directly from the order, right shoulder, or present, or the reverse. At the command **Arms** execute **port arms** and continue in cadence to the position ordered.

106. Being at left shoulder arms: 1. Port, 2. ARMS.

Grasp the rifle with the right hand at the small of the stock. (TWO) Carry the rifle to the right with the right hand, regrasp it with the left and take the position of port arms.

107. Being at order arms: 1. Parade, 2. REST.

Carry the right foot 6 inches straight to the rear, left knee slightly bent; carry the muzzle in front of the center of the body, barrel to the left; grasp the rifle with the left hand just below the stacking swivel and with the right hand below and against the left. (Fig. 8.)

FIG. 8, par. 107.

Being at parade rest: 1. Squad, 2. ATTENTION.

Resume the order, the left hand quitting the rifle opposite the right hip.

108. Being at order arms. 1. Trail, 2. ARMS.

Raise the rifle, right arm slightly bent, and incline the muzzle forward so that the barrel makes an angle of about 30° with the vertical. (Fig. 9.)

FIG. 9, par. 108.

When it can be done without danger or inconvenience to others, the rifle may be grasped at the balance and muzzle lowered until the rifle is horizontal; a similar position in the left hand may be used.

109. Being at trail arms: 1. Order, 2. ARMS.

Lower the rifle with the right hand and resume the order.

FIG. 10, par. 110.

RIFLE SALUTE.

110. Being at right shoulder arms: 1. Rifle, 2. SALUTE.

Carry the left hand smartly to the small of the stock, forearm horizontal, palm of the hand down, thumb and fingers

extended and joined, forefinger touching end of cocking piece; look toward the person saluted. **(TWO)** Drop left hand by the side; turn head and eyes to the front. (Fig. 10.)

FIG. 11, par. 111.

With the rifle on the left shoulder, the salute is rendered in a corresponding manner with the right hand.

111. Being at order or trail arms: 1. Rifle, 2. SALUTE.

Carry the left hand smartly to the right side, palm of the hand down, thumb and fingers extended and joined, forefinger against the rifle near the muzzle; look toward the person saluted. **(TWO)** Drop the left hand by the side; turn the head and eyes to the front. (Fig. 11.)

FIG. 12, par. 112.

THE INSPECTION.

112. Being at order arms: 1. Inspection, 2. ARMS.

At the second command, take the position of port arms. **(TWO)** Seize the bolt handle with the thumb and forefinger of the right hand, turn the handle up, draw the bolt back and glance at the chamber. Having found the chamber empty, or having emptied it, raise the head and eyes to the front. (Fig. 12.)

113. Being at inspection arms: 1. Order (right shoulder, port), 2. ARMS.

At the preparatory command, push the bolt forward, turn the handle down, pull the trigger, and resume port arms. At the command arms complete the movement ordered.

TO DISMISS.

114. Being at halt: 1. Inspection, 2. ARMS, 3. Port, 4. ARMS, 5. DISMISSED.

TO STACK AND TAKE ARMS.

115. Three rifles only are used to make a stack; rifles not so used are, in this connection, termed **loose rifles.**

Being in line at a halt: STACK ARMS.

At the command stack, No. 3 steps back and covers No. 3, No. 2 raises his rifle with the right hand, grasps it with the left at the upper band and rests the butt between his feet, barrel to the front, muzzle inclined slightly to the front and opposite the center of the interval on his right, the thumb and forefinger raising the stacking swivel; No. 3 then passes his rifle, barrel to the rear, to No. 2, who grasps it between the bands with his right hand and throws the butt about 2 feet in advance of that of his own rifle and opposite the right of the interval, the right hand slipping to the upper band, the thumb and forefinger raising the stacking swivel, which he engages with that of his own rifle; No. 1 raises his rifle with the right hand, carries it well forward, barrel to the front, the left hand guiding the stacking swivel, engages the lower hook of the swivel of his own rifle with the free hook of that of No. 3; he then turns the barrel outward into the angle formed by the other two rifles and lowers the butt to the ground to the right of and against the toe of his right shoe. No. 2 lays loose rifles on the stack; No. 3 resumes his place in line. When each man has finished handling rifles, he takes the position of **attention.** The instructor may then rest or dismiss the squad, leaving the arms stacked.

On re-forming, the men take their places in rear of the stacks.

116. Being in line, behind the stacks: TAKE ARMS.

No. 3 steps back and covers No. 2; No. 2 returns the loose rifles, then grasps his own rifle with the left hand, the rifle of No. 3 with his right hand, grasping both between the bands; No. 1 grasps his rifle in the same way with the right hand. No. 1 disengages his rifle by raising the butt from the ground and then turning the rifle to the right, detaches it from the stack; No. 2 disengages and detaches his rifle by turning it to the left, and then passes the rifle of No. 3 to him; No. 3 resumes his place in line; all resume the order.

KNEELING AND LYING DOWN.

117. If standing: **KNEEL.**

Half face to the right; carry the right toe about 1 foot to the left rear of the left heel; kneel on the right knee, sitting as nearly as possible on the right heel; left forearm across left thigh; rifle remains in position of order arms, right hand grasping it above the lower band. This is the position of **order arms**, kneeling. (Fig. 13.)

FIG. 13, par. 117.

118. If standing or kneeling: **LIE DOWN.**

Kneel, but with right knee against left heel; carry back the left foot and lie flat on the belly, inclining body about 35° to the right; rifle horizontal, barrel up, muzzle off the ground and pointed to the front; elbows on the ground; left hand at the balance, right hand grasping the small of the stock opposite the neck. This is the position of **order arms**, lying down. (Fig. 14.)

FIG. 14, par. 118.

119. If kneeling or lying down: **RISE.**

If kneeling, stand up, faced to the front, on the ground marked by the left heel.

If lying down, raise the body on both knees; stand up, faced to the front, on the ground marked by the knees.

120. If lying down: **KNEEL.**

Raise the body on both knees, take the position of kneel.

When deployed as skirmishers, a sitting position may be taken instead of the position kneeling.

II. INSTRUCTION WITH THE RIFLE.

23. The commands for and the execution of the foot movements are the same as already given for movements without the rifle.

24. The men having taken intervals or distances, the instructor commands:

1. Bayonet exercise, 2. GUARD.

At the second command take the position of guard (see par. 15); at the same time throw the rifle smartly to the front, grasp the rifle with the left hand just below the lower band, fingers between the stock and gun sling, barrel turned slightly to the left, the right hand grasping the small of the stock about 6 inches in front of the right hip, elbows free from the body, bayonet point at the height of the chin.

FIG. 15, par. 24.

25. 1. Order, 2. ARMS.

Bring the right foot up to the left and the rifle to the position of order arms, at the same time resuming the position of attention.

26. During the preliminary instruction, attacks and defenses will be executed from guard until proficiency is attained, after which they may be executed from any position in which the rifle is held.

ATTACKS.

27. 1. THRUST.

Thrust the rifle quickly forward to the full length of the left arm, turning the barrel to the left, and direct the point of the bayonet at the point to be attacked, but covering the right forearm. At the same time straighten the right leg vigorously and throw the weight of the body forward and on the

left leg, the ball of the right foot always on the ground. Guard is resumed immediately without command.

The force of the thrust is delivered principally with the right arm, the left being used to direct the bayonet. The points at which the attack should be directed are, in order of their importance, stomach, chest, head, neck, and limbs.

FIG. 16, par. 27.

FIG. 17, par. 29.

28. 1. LUNGE.

Executed in the same manner as the thrust, except that the left foot is carried forward about twice its length. The left

sumed by advancing the right foot if for any reason it is deheel must always be in rear of the left knee. Guard is resumed immediately without command. Guard may also be re-

FIG. 18, par. 28.

sired to hold the ground gained in lunging. In the latter case the preparatory command **forward** will be given. Each method should be practiced.

29. 1. **Butt,** 2. **STRIKE.**

Straighten right arm and right leg vigorously and swing butt of rifle against point of attack, pivoting the rifle in the left hand at about the height of the left shoulder, allowing the bayonet to pass to the rear on the left side of the head. Guard is resumed without command.

The points of attack in their order of importance are head, neck, stomach, and crotch.

30. 1. **Cut,** 2. **DOWN.**

Execute a quick downward stroke, edge of bayonet directed at point of attack. Guard is resumed without command.

Par. 19.

31. 1. Cut, 2. RIGHT (LEFT).

With a quick extension of the arms execute a cut to the right (left), directing the edge toward the point attacked. Guard is resumed without command.

The cuts are espepecially useful against the head, neck, and hands of an enemy. In executing left cut it should be remembered that the false, or back, edge is only 5.6 inches long. The cuts can be executed in continuation of strokes, thrusts, lunges, and parries.

32. To direct an attack to the right, left, or rear the soldier will change front as quickly as possible in the most convenient manner, for example: **1. To the right rear, 2. Cut, 3. DOWN; 1. To the right, 2. LUNGE; 1. To the left, 2. THRUST,** etc.

Whenever possible the impetus gained by the turning movement of the body should be thrown into the attack. In general this will be best accomplished by turning on the ball of the right foot.

Par. 20.

These movements constitute a change of front in which the position of guard is resumed at the completion of the movement.

33. Good judgment of distance is essential. Accuracy in thrusting and lunging is best attained by practicing these attacks against rings or other convenient openings, about 3 inches in diameter, suitably suspended at desired heights.

34. The thrust and lunges at rings should first be practiced by endeavoring to hit the opening looked at. This should be followed by directing the attack against one opening while looking at another.

35. The soldier should also experience the effect of actual resistance offered to the bayonet and the butt of the rifle in attacks. This will be taught by practicing attacks against a dummy.

36. Dummies should be constructed in such a manner as to permit the execution of attacks without injury to the point or edge of the bayonet or to the barrel or stock of the rifle. A suitable dummy can be made from pieces of rope about 5 feet in length plaited closely together into a cable between 6 and 12 inches in diameter. Old rope is preferable. Bags weighted and stuffed with hay, straw, shavings, etc., are also suitable.

DEFENSES.

37. In the preliminary drills in the defenses the position of guard is resumed, by command, after each parry. When the men have become proficient the instructor will cause them to resume the position of guard instantly without command after the execution of each parry.

38. 1. **Parry, 2. RIGHT.**

Keeping the right hand in the guard position, move the rifle sharply to the right with the left arm, so that the bayonet point is about 6 inches to the right.

39. 1. **Parry, 2. LEFT.**

Move the rifle sharply to the left front with both hands so as to cover the point attacked.

40. 1. **Parry, 2. HIGH.**

Raise the rifle with both hands high enough to clear the line of vision, barrel downward, point of the bayonet to the left front.

When necessary to raise the rifle well above the head, it may be supported between the thumb and forefinger of the left hand. This position will be necessary against attacks from higher elevations, such as men mounted or on top of parapets.

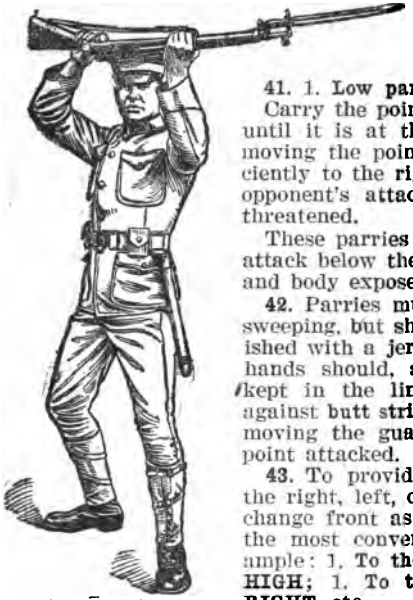


FIG. 21, par. 40.

41. 1. Low parry, 2. RIGHT (LEFT). Carry the point of the bayonet down until it is at the height of the knee, moving the point of the bayonet sufficiently to the right (left), to keep the opponent's attacks clear of the point threatened.

These parries are rarely used, as an attack below the waist leaves the head and body exposed.

42. Parries must not be too wide or sweeping, but sharp, short motions, finished with a jerk or quick catch. The hands should, as far as possible, be kept in the line of attack. Parries against butt strike are made by quickly moving the guard so as to cover the point attacked.

43. To provide against attack from the right, left, or rear the soldier will change front as quickly as possible in the most convenient manner; for example: 1. To the left rear, 2. Parry, 2. HIGH; 1. To the right, 2. Parry, 3. RIGHT, etc.

These movements constitute a change of front in which the position of guard is resumed at the completion of the movement.

In changing front for the purpose of attack or defense, if there is danger of wounding a comrade, the rifle should first be brought to a vertical position.

III. INSTRUCTION WITHOUT THE BAYONET.

44. 1. Club rifle, 2. SWING.

Being at order arms, at the preparatory command quickly raise and turn the rifle, regrasping it with both hands between the rear sight and muzzle, barrel down, thumbs around the stock

FIG. 22, par. 41.

FIG. 23, par. 41.

and toward the butt; at the same time raise the rifle above the shoulder farthest from the opponent, butt elevated and to the rear, elbows slightly bent and knees straight. Each individual takes such position of the feet, shoulders, and hands as best accords with his natural dexterity. **SWING.** Tighten

the grasp of the hands and swing the rifle to the front and downward, directing it at the head of the opponent, and immediately return to the position of **club rifle** by complet-

FIG. 24, par. 44.

FIG. 25, par. 44.

ing the swing of the rifle downward and to the rear. **Repeat** by the command, **SWING.**

The rifle should be swung with sufficient force to **break** through any guard or parry that may be interposed.

Being at club rifle, order arms is resumed by command.

The use of this attack against dummies or in fencing is prohibited.

45. The position of club rifle may be taken from any position of the rifle prescribed in the Manual of Arms. It will not be taken in personal combat unless the emergency is such as to preclude the use of the bayonet.

IV. COMBINED MOVEMENTS.

46. The purpose of combined movements is to develop more vigorous attacks and more effective defenses than are obtained by the single movements; to develop skill in passing from attack to defense and the reverse. Every movement to the front should be accompanied by an attack, which is increased in effectiveness by the forward movement of the body. Every movement to the rear should ordinarily be accompanied by a parry and should always be followed by an attack. Movements to the right or left may be accompanied by attacks or defenses.

47. Not more than three movements will be used in any combination. The instructor should first indicate the number of movements that are to be combined as two movements or three movements. The execution is determined by one command of execution, and the position of guard is taken upon the completion of the last movement only.

EXAMPLES.

Front pass and LUNGE.
Right step and THRUST.
Left step and low parry RIGHT.
Rear pass, parry left and LUNGE.
Lunge and cut RIGHT.
Parry right and parry HIGH.
Butt strike and cut DOWN.
Thrust and parry HIGH.
Parry high and LUNGE.
Advance, thrust and cut RIGHT.
Right step, parry left and cut DOWN.
To the left, butt strike and cut DOWN.
To the right rear, cut down and butt STRIKE.

48. Attacks against dummies will be practiced. The approach will be made against the dummies both in quick time and double time.

V. PRACTICAL BAYONET COMBAT.

49. The principles of practical bayonet combat should be taught as far as possible during the progress of instruction in bayonet exercises.

50. The soldier must be continually impressed with the extreme importance of the offensive due to its moral effect. Should an attack fail, it should be followed immediately by another attack before the opponent has an opportunity to assume the offensive. Keep the opponent on the defensive. If, due to circumstances, it is necessary to take the defensive, constantly watch for an opportunity to assume the offensive and take immediate advantage of it.

51. Observe the ground with a view to obtaining the best footing. Time for this will generally be too limited to permit more than a single hasty glance.

52. In personal combat watch the opponent's eyes if they can be plainly seen, and do not fix the eyes on his weapon nor upon the point of your attack. If his eyes can not be plainly seen, as in night attacks, watch the movements of his weapon and of his body.

53. Keep the body well covered and deliver attacks vigorously. The point of the bayonet should always be kept as nearly as possible in the line of attack. The less the rifle is moved upward, downward, to the right, or to the left, the better prepared the soldier is for attack or defense.

54. Constantly watch for a chance to attack the opponent's left hand. His position of guard will not differ materially from that described in paragraph 24. If his bayonet is without a cutting edge, he will be at a great disadvantage.

55. The butt is used for close and sudden attacks. It is particularly useful in riot duty. From the position of port arms a sentry can strike a severe blow with the butt of the rifle.

56. Against a man on foot, armed with a sword, be careful that the muzzle of the rifle is not grasped. All the swords-

man's energies will be directed toward getting past the bayonet. Attack him with short, stabbing thrusts and keep him beyond striking distance of his weapon.

57. The adversary may attempt a greater extension in the thrust and lunge by quitting the grasp of his piece with the left hand and advancing the right as far as possible. When this is done, a sharp parry may cause him to lose control of his rifle, leaving him exposed to a counter attack, which should follow promptly.

58. Against odds a small number of men can fight to best advantage by grouping themselves so as to prevent their being attacked from behind.

59. In fighting a mounted man armed with a saber every effort must be made to get on his near, or left, side, because here his reach is much shorter and his parries much weaker. If not possible to disable such an enemy, attack his horse and then renew the attack on the horseman.

60. In receiving night attacks the assailant's movements can be best observed from the kneeling or prone position, as his approach generally brings him against the sky line. When he arrives within attacking distance rise quickly and lunge well forward at the middle of his body.

VI. FENCING EXERCISES.

61. Fencing exercises in two lines consist of combinations of thrusts, parries, and foot movements executed at command or at will, the opponent replying with suitable parries and returns.

62. The instructor will inspect the entire fencing equipment before the exercise begins and assure himself that everything is in such condition as will prevent accidents.

63. The men equip themselves and form in two lines at the order, facing each other, with intervals of about 4 paces between files and a distance of about 2 paces between lines. One line is designated as number 1; the other, number 2. Also as attack and defense.

64. The opponents being at the order facing each other, the instructor commands: **SALUTE.**

Each man, with eyes on his opponent, carries the left hand smartly to the right side, palm of the hand down, thumb and

fingers extended and joined, forearm horizontal, forefinger touching the bayonet. (Two.) Drop the arm smartly by the side.

This salute is the fencing salute.

All fencing exercises and all fencing at will between individuals will begin and terminate with the formal courtesy of the fencing salute.

65. After the fencing salute has been rendered the instructor commands: 1. **Fencing exercise,** 2. **GUARD.**

At the command **guard** each man comes to the position of **guard,** heretofore defined, bayonets crossed, each man's bayonet bearing lightly to the right against the corresponding portion of the opponent's bayonet. This position is known as the **engage** or **engage right.**

66. Being at the **engage right: ENGAGE LEFT.**

The attack drops the point of his bayonet quickly until clear of his opponent's rifle and describes a semicircle with it upward and to the right; bayonets are crossed similarly as in the engaged position, each man's bayonet bearing lightly to the left against the corresponding portion of the opponent's bayonet.

67. Being at **engage left: ENGAGE RIGHT.**

The attack quickly drops the point of his bayonet until clear of his opponent's rifle and describes a semicircle with it upward and to the left and **engages.**

68. Being **engaged: ENGAGE LEFT AND RIGHT.**

The attack **engages** left and then immediately **engages** right.

69. Being **engaged left: ENGAGE RIGHT AND LEFT.**

The attack **engages** right and then immediately **engages** left.

70. 1. **Number one, ENGAGE RIGHT (LEFT);** 2. **Number two, COUNTER.**

Number one executes the movement ordered, as above; number two quickly drops the point of his bayonet and circles it upward to the original position.

71. In all fencing while maintaining the pressure in the engage a certain freedom of motion of the rifle is allowable, consisting of the play, or up-and-down motion, of one bayonet against the other. This is necessary to prevent the opponent

from divining the intended attack. It also prevents his using the point of contact as a pivot for his assaults. In changing from one engage to the other the movement is controlled by the left hand, the right remaining stationary.

72. After some exercise in engage, engage left, and counter, exercises will be given in the assaults.

ASSAULTS.

73. The part of the body to be attacked will be designated by name, as head, neck, chest, stomach, legs. No attacks will be made below the knees. The commands are given and the movements for each line are first explained thoroughly by the instructor; the execution begins at the command assault. Number one executes the attack, and number two parries; conversely, at command, number two attacks and number one parries.

74. For convenience in instruction assaults are divided into simple attacks, counter attacks, attacks on the rifle, and feints.

SIMPLE ATTACKS.

75. Success in these attacks depends on quickness of movement. There are three simple attacks—the straight, the disengagement, and the counter disengagement. They are not preceded by a feint.

76. In the straight the bayonet is directed straight at an opening from the engaged position. Contact with the opponent's rifle may or may not be abandoned while making it. If the opening be high or low, contact with the rifle will usually be abandoned on commencing the attack. If the opening be near his guard, the light pressure used in the engage may be continued in the attack.

Example: Being at the engage right, 1. Number one, at neck (head, chest, right leg, etc.), thrust; 2. Number two, parry right; 3. ASSAULT.

77. In the disengagement contact with the opponent's rifle is abandoned and the point of the bayonet is circled under or over his bayonet or rifle and directed into the opening attacked. This attack is delivered by one continuous spiral

movement of the bayonet from the moment contact is abandoned.

Example: Being at the **engage right**, 1. **Number one**, at stomach (left chest, left leg, etc.), **thrust**; 2. **Number two, parry left** (etc.); 3. **ASSAULT.**

78. In the **counter disengagement** a swift attack is made into the opening disclosed while the opponent is attempting to change the engagement of his rifle. It is delivered by one continuous spiral movement of the bayonet into the opening.

Example: Being at the **engage right**, 1. **Number two, engage left**; 2. **Number one**, at chest, **thrust**; 3. **Number two, parry left**; 4. **ASSAULT.**

Number two initiates the movement, number one thrusts as soon as the opening is made, and number two then attempts to **parry.**

79. A **counter attack** or **return** is one made instantly after or in continuation of a parry. The parry should be as narrow as possible. This makes it more difficult for the opponent to recover and counter parry. The counter attack should also be made at or just before the full extension of the opponent's attack, as when it is so made a simple extension of the arms will generally be sufficient to reach the opponent's body.

Example: Being at **engage**, 1. **Number two**, at chest, **lunge**; 2. **Number one, parry right**, and at stomach (chest, head, etc.), **thrust**; 3. **ASSAULT.**

ATTACKS ON THE RIFLE.

80. These movements are made for the purpose of forcing or disclosing an opening into which an attack can be made. They are the **press**, the **beat**, and the **twist.**

81. In the **press** the attack quickly presses against the opponent's bayonet or rifle with his own and continues the pressure as the attack is delivered.

Example: Being at the **engage**, 1. **Number one, press**, and at chest, **thrust**; 2. **Number two, parry right**; 3. **ASSAULT.**

82. The attack by **disengagement** is particularly effective following the **press.**

Example: Being at the **engage**, 1. **Number one, press**, and at stomach, **thrust**; 2. **Number two, low parry left**; 3. **ASSAULT.**

83. The **beat** is an attack in which a sharp blow is struck against the opponent's rifle for the purpose of forcing him to expose an opening into which an attack immediately follows. It is used when there is but slight opposition or no contact of rifles.

Example: Being at the **engage**, 1. **Number one, beat,** and at stomach (chest, etc.), **thrust**; 2. **Number two, parry left**; 3. **ASSAULT.**

84. In the **twist** the rifle is crossed over the opponent's rifle or bayonet and his bayonet forced downward with a circular motion and a straight attack made into the opening. It requires superior strength on the part of the attack.

Example: Being at the **engage**, 1. **Number one, twist,** and at stomach, **thrust**; 2. **Number two, low parry left**; 3. **ASSAULT.**

FEINTS.

85. Feints are movements which threaten or simulate attacks and are made with a view to inducing an opening or parry that exposes the desired point of attack. They are either single or double, according to the number of such movements made by the attack.

86. In order that the attack may be changed quickly, as little force as possible is put into a feint.

Example: Being at the **engage**, 1. **Number one, feint head thrust**; at stomach, **lunge**; 2. **Number two, parry right and low parry right**; 3. **ASSAULT.**

Number one executes the feint and then the attack. Number two executes both parries.

87. In double feints first one part of the body and then another is threatened and a third attacked.

Example: Being at the **engage**, 1. **Number one, feint straight thrust** at chest; **disengagement** at chest; at stomach, **lunge**; 2. **Number two, parry right, parry left,** and **low parry left**; 3. **ASSAULT.**

88. An opening may be offered or procured by opposition, as in the **press** or **beat.**

89. In fencing exercises every feint should at first be parried. When the defense is able to judge or divine the char-

acter of the attack the feint is not necessarily parried, but may be nullified by a counter feint.

90. A **counter feint** is a feint following the opponent's feint or following a parry of his attack and generally occurs in combined movements.

COMBINED MOVEMENTS.

91. When the men have become thoroughly familiar with the various foot movements, parries, guards, attacks, feints, etc., the instructor combines several of them and gives the commands in quick succession, increasing the rapidity and number of movements as the men become more skillful. Opponents will be changed frequently.

1. Example: Being at the **engage**, 1. **Number one, by disengagement** at chest, **thrust**; 2. **Number two, parry left, right step** (left foot first), and **lunge**; 3. **ASSAULT.**

2. Example: Being at **engage left**, 1. **Number one, press** and **lunge**; 2. **Number two, parry right, left step**, and **thrust**; 3. **ASSAULT.**

3. Example: Being at the **engage**, 1. **Number one, by disengagement** at chest, **thrust**; 2. **Number two, parry left, front pass**, and at head **butt strike**; 3. **Number one, right step**; 4. **ASSAULT.**

92. Examples 1 and 2 are typical of movements known as **cross counters**, and example No. 3 of movements known as **close counters.**

93. A **chancery** is an attack by means of which the opponent is disarmed, which causes him to lose control of his rifle, or which disables his weapon.

94. When the different combinations are executed with sufficient skill the instructor will devise series of movements to be memorized and executed at the command **assault.** The accuracy and celerity of the movements will be carefully watched by the instructor, with a view to the correction of faulty execution.

95. It is not intended to restrict the number of movements, but to leave to the discretion of company commanders and the ingenuity of instructors the selection of such other exercises as accord with the object of the drill.

VII. FENCING AT WILL.

96. As satisfactory progress is made the instructor will proceed to the exercises at will, by which is meant assaults between two men, each endeavoring to hit the other and to avoid being hit himself. Fencing at will should not be allowed to degenerate into random attacks and defenses.

97. The instructor can supervise but one pair of combatants at a time. Frequent changes should be made so that the men may learn different methods of attack and defense from each other.

98. The contest should begin with simple, careful movements, with a view to forming a correct opinion of the adversary; afterwards everything will depend on coolness, rapid and correct execution of the movements, and quick perception of the adversary's intentions.

99. Continual retreat from the adversary's attack and frequent dodging to escape attacks should be avoided. The offensive should be continually encouraged.

100. In fencing at will, when no commands are given, opponents facing each other at the position of order arms, salute. They then immediately and simultaneously assume the position of guard, rifles engaged. Neither man may take the position of guard before his opponent has completed his salute. The choice of position is decided before the salute.

101. The opponents being about two paces apart and the fencing salute having been rendered, the instructor commands, 1. **At will**, 2. **ASSAULT**, after which either party has the right to attack. To interrupt the contest the instructor will command, **HALT**, at which the combatants will immediately come to the order. To terminate the contest, the instructor will command, 1. **Halt**, 2. **SALUTE**, at which the combatants will immediately come to the order, salute, and remove their masks.

102. When men have acquired confidence in fencing at will, one opponent should be required to advance upon the other in quick time at **charge bayonet**, from a distance not to exceed 10 yards, and deliver an attack. As soon as a hit is made by either opponent the instructor commands, **HALT**, and the assault terminates. Opponents alternate in assaulting. The assailant is likewise required to advance at double time from

a distance not exceeding 20 yards and at a run from a distance not exceeding 30 yards.

103. The instructor will closely observe the contest and decide doubtful points. He will at once stop the contest upon the slightest indication of temper. After conclusion of the combat he will comment on the action of both parties, point

FIG. 26, par. 104.

out errors and deficiencies, and explain how they may be avoided in the future.

104. As additional instruction, the men may be permitted to wield the rifle left handed—that is, on the left side of the body, left hand at the small of the stock. Many men will be able to use this method to advantage. It is also of value in case the left hand is wounded.

105. After men have fenced in pairs, practice should be given in fencing between groups, equally and unequally divided. When practicable, intrenchments will be used in fencing of this character.

In group fencing it will be necessary to have a sufficient number of umpires to decide hits. An individual receiving a hit is withdrawn at once from the bout, which is decided in favor of the group having the numerical superiority at the end. The fencing salute is not required in group fencing.

RULES FOR FENCING AT WILL.

106. 1. Hits on the legs below the knees will not be counted. No hit counts unless, in the opinion of the instructor, it has sufficient force to disable.

2. Upon receiving a hit, call out "hit."

3. After receiving a fair hit a counter attack is not permitted. A position of engage is taken.

4. A second or third hit in a combined attack will be counted only when the first hit was not called.

5. When it is necessary to stop the contest—for example, because of breaking of weapons or displacement of means of protection—take the position of the order.

6. When it is necessary to suspend the assault for any cause, it will not be resumed until the adversary is ready and in condition to defend himself.

7. Attacks directed at the crotch are prohibited in fencing.

8. Stepping out of bounds, when established, counts as a hit.

SUGGESTIONS FOR FENCING AT WILL.

107. When engaging in an assault, first study the adversary's position and proceed by false attacks, executed with speed, to discover, if possible, his instinctive parries. In order to draw the adversary out and induce him to expose that part of the body at which the attack is to be made, it is advisable to simulate an attack by a feint and then make the real attack.

108. Return attacks should be frequently practiced, as they are difficult to parry, and the opponent is within easier reach

and more exposed. The return can be made a continuation of the parry, as there is no previous warning of its delivery, although it should always be expected. Returns are made without lunging if the adversary can be reached by thrusts or cuts.

109. Endeavor to overcome the tendency to make a return without knowing where it will hit. Making returns blindly is a bad habit and leads to instinctive returns—that is, habitual returns with certain attacks from certain parries—a fault which the skilled opponent will soon discover.

110. Do not draw the rifle back preparatory to thrusting and lunging.

111. The purpose of fencing at will is to teach the soldier as many forms of simple, effective attacks and defenses as possible. Complicated and intricate movements should not be attempted.

HINTS FOR INSTRUCTORS.

112. The influence of the instructor is great. He must be master of his weapon, not only to show the various movements but also to lead in the exercises at will. He should stimulate the zeal of the men and arouse pleasure in the work. Officers should qualify themselves as instructors by fencing with each other.

113. The character of each man, his bodily conformation, and his degree of skill must always be taken into account. When the instructor is demonstrating the combinations, feints, returns, and parries the rapidity of his attack should be regulated by the skill of the pupil, and no more force than is necessary should be used. If the pupil exposes himself too much in the feints and parries, the instructor will, by an attack, convince him of his error; but if these returns be too swiftly or too strongly made the pupil will become overcautious and the precision of his attack will be impaired. The object is to teach the pupil, not to give exhibitions of superior skill.

114. Occasionally the instructor should leave himself uncovered and fail to parry, in order to teach the pupil to take quick advantage of such opportunities.

SUGGESTIONS.

Instruction in bayonet exercise and bayonet fencing should be conducted with a view to teaching the aggressive use of the bayonet. Unless troops are so thoroughly trained with the bayonet that they believe that with it they are superior to their opponents it will be difficult or impossible to develop that morale which is necessary for a successful assault. Men should be impressed with the importance of acting always on the offensive in bayonet combat, of pushing their attack with all their might. Troops which are successful in their first few bayonet encounters will seldom thereafter be called upon to use the bayonet—their opponents will not await the assault.

LOADINGS AND FIRINGS.

121. The commands for loading and firing are the same whether standing, kneeling, or lying down. The firings are always executed at a halt.

The instruction in firing will be preceded by a command for loading.

Loadings are executed in line and skirmish line only.

122. Rifles having been ordered loaded are kept loaded without command until the command **unload** or **inspection arms**, fresh clips being inserted when the magazine is exhausted.

123. The aiming point or target is carefully pointed out. This may be done before or after announcing the sight setting. Both are indicated before giving the command for firing, but may be omitted when the target appears suddenly and is unmistakable; in such cases the battle sight is used if no sight setting is announced. The troopers must be practiced repeatedly in locating targets, making the appropriate sight settings, and simulating fire on the target indicated.

124. The target or aiming point having been designated and the sight setting announced, such designation or announcement need not be repeated until a change of either or both is necessary.

Troops are trained to continue their fire upon the aiming point or target designated and at the sight setting announced until a change is ordered.

125. If the men are not already in the position of load, that position is taken at the announcement of the sight setting; if the announcement is omitted, the position is taken at the first command for firing.

126. When deployed, the use of the sling as an aid to accurate firing is discretionary with each man.

127. The correct estimation of distances is of great importance in connection with all rifle firing except that at short ranges. Instruction of the recruit in this phase of training must not be delayed until range firing is taken up, but should be begun in the early instruction and carried forward progressively, thus gradually developing the faculties involved. In the same way the occasional firing of a few shots, first with blank cartridges and later with ball cartridges at short range and under conditions permitting very careful detailed supervision of each man's position, will be found of exceptional value as a preliminary exercise to the course of range firing prescribed for recruits. Detailed directions for conducting the instruction of the recruit in estimating distances and in rifle firing are prescribed in the **Small Arms Firing Manual.**

TO LOAD.

128. **Being in line or skirmish line at halt: 1. With dummy (blank or ball) cartridges, 2. LOAD.**

At the command load each trooper faces half right and carries the right foot to the right, about 1 foot, to such position as will insure the greatest firmness and steadiness of the body, raises or lowers the rifle and drops it into the left hand at the balance, left thumb extended along the stock, muzzle at the height of the breast, and turns the cut-off up. With the right hand he turns and draws the bolt back, takes a loaded clip and inserts the end in the clip slots, places the thumb on the

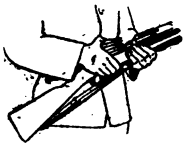


FIG. 27, par. 128.

FIG. 28, par. 128.

powder space of the top cartridge, the fingers extending around the rifle and tips resting on the magazine floor plate; forces the cartridges into the magazine by pressing down with the thumb; without removing the clip thrusts the bolt home, turning down the handle; turns the safety lock to the "safe"; and carries the hand to the small of the stock.

A skirmish line may load while moving, the rifles being held as nearly as practicable in the position of load.

If kneeling or sitting, the position of the piece is similar; if kneeling, the left forearm rests on the left thigh; if sitting, the elbows are supported by the knees; if lying down, the left hand steadies and supports the piece at the balance, the toe of the butt resting on the ground, the muzzle off the ground.

For reference, these positions (standing, kneeling, and lying down) are designated as that of load. (Figs. 15, 16.)

129. For instruction in loading: 1. **Simulate**, 2. **LOAD.**

Executed as above described, except that the cut-off remains "off" and the handling of cartridges is simulated.

The recruits are first taught to **simulate** loading and firing; after a few lessons dummy cartridges may be used. Later, blank cartridges may be used.

130. The rifle may be used as a single loader by turning the magazine "off." The magazine may be filled in whole or in part while "off" or "on" by pressing cartridges singly down and back until they are in the proper place. The use of the rifle as a single loader is, however, to be regarded as exceptional.

TO UNLOAD.

131. UNLOAD.

Take the position of load, turn the safety lock up and move bolt alternately back and forward until all the cartridges are ejected. After the last cartridge is ejected the chamber is closed by first thrusting the bolt slightly forward to free it from the stud holding it in place when the chamber is open, pressing the follower down and back to engage it under the bolt, and then thrusting the bolt home; the trigger is pulled. The cartridges are then picked up, cleaned, and returned to the belt, and the rifle is brought to the order.

TO SET THE SIGHT.

132. RANGE, ELEVEN HUNDRED (EIGHT-FIFTY, ETC.), or BATTLE SIGHT.

The sight is set at the elevation indicated. The instructor explains and verifies sight settings.

TO FIRE BY VOLLEY.

133. 1. READY, 2. AIM, 3. Squad, 4. FIRE.

FIG. 29, par. 133.

At the command **ready**, turn the safety lock to the "ready;" at the command **aim**, raise the rifle with both hands and support the butt firmly against the hollow of the right shoulder, right thumb clasping the stock, barrel horizontal, left elbow well under the rifle, right elbow as high as the shoulder; incline the head slightly forward and a little to the right, cheek against the stock, left eye closed, right eye looking through the notch of the rear sight so as to perceive the object aimed at, second joint of forefinger resting lightly against the front of the trigger and taking up the slack; top of front sight is carefully raised into, and held in, the line of sight.

FIG. 30, par. 133.

In aiming kneeling the left elbow rests on the left knee, point of elbow in front of knee-cap. In aiming sitting the elbows are supported by the knees.

FIG. 31, par. 133.

In aiming lying down raise the rifle with both hands, rest on both elbows and press the butt firmly against the right shoulder.

At the command **fire,** press the finger against the trigger; fire without deranging the aim and without lowering or turning the rifle; lower the rifle to the position of **load** and load. (Figs. 17, 18, 19.)

134. To continue the firing: 1. **AIM,** 2. **Squad,** 3. **FIRE.**

Each command is executed as previously explained. **Load** (from magazine) is executed by drawing back and thrusting home the bolt with the right hand, leaving the safety lock at the "ready."

TO FIRE AT WILL.

135. FIRE AT WILL.

Each man, independently of the other, comes to the **ready,** aims carefully and deliberately at the aiming point or target, **fires, loads,** and continues the firing until ordered to **suspend** or **cease firing.**

136. To increase (decrease) the rate of fire in progress the instructor shouts: **FASTER (SLOWER).**

Men are trained to fire at the rate of about three shots per minute at effective ranges and five or six at close ranges, devoting the minimum of time to loading and the maximum to deliberate aiming. To illustrate the necessity for deliberation, and to habituate men to battle conditions, small and comparatively indistinct targets are designated.

TO FIRE BY CLIP.

137. CLIP FIRE.

Executed in the same manner as **fire at will,** except that each man, afer having exhausted the cartridges then in the rifle, *suspends firing.*

TO SUSPEND FIRING.

138. The instructor blows a **long blast** of the whistle and repeats same, if necessary, or commands: **SUSPEND FIRING.**

Firing stops; rifles are held, loaded, and locked in a position of readiness for instant resumption of firing, sights unchanged. The men continue to observe the target or aiming point, or the place at which the target disappeared, or at which it is expected to reappear.

This whistle signal may be used as a preliminary to cease firing.

TO CEASE FIRING.

139. CEASE FIRING.

Firing stops; rifles not already there are brought to the position of load, the cut-off turned down if firing from magazine, the cartridge is drawn or the empty shell is ejected. the trigger is pulled, sights are laid down, and the rifle is brought to the order.

Cease firing is used for long pauses to prepare for changes of position or to steady the men.

140. Commands for suspending or ceasing fire may be given at any time after the preparatory command for firing whether the firing has actually commenced or not.

TARGET DESIGNATION.

141. In the training of men in the mechanism of the firing line, they should be practiced in repeating to one another target and aiming point designations and in quickly locating and pointing out a designated target. They should be taught to distinguish, from a prone position, distant objects, particularly troops, both with the naked eye and with field glasses.

Owing to the invariable custom of attempting to conceal fire trenches, it is necessary to have some ready method of indicating the exact location of an indistinct pit or trench occupied or supposed to be occupied by an enemy in order that effective fire may be opened. The so-called clock system furnishes one of the simplest devices for so doing. Two methods of applying this system are indicated below.

First method: That in which an imaginary clock dial is assumed to be horizontal, its center at the *firing point* and the center-XII line of the dial perpendicular to the front of the firing line.

To designate a target the commander announces, for example: **Target at 11 o'clock, range 800 yards, a trench.** Each man looks along the center-11 o'clock line of his imaginary dial, estimates the distance (800 yards) along that line, and thereby locates the trench.

In this method it is necessary that the target be visible to the naked eye and that each man be able to estimate distances with fair accuracy.

Second method: That in which an imaginary clock dial is assumed to be vertical, its center being at a **prominent, distant point** selected by the commander and called the **reference point.**

To designate a target the commander announces, for example: **Reference point, that clump of trees on hill crest.** When the men have located the reference point he announces: **Target at 4 o'clock, 2 finger widths, range 1,000 yards, a gun pit.** By a finger width is meant the distance on the face of the assumed vertical clock (actually on the landscape) intercepted by the breadth of a man's finger held perpendicularly to his hand and arm, the latter being fully extended in the direction of the reference point.

Each man looks along the center-4 o'clock line of the imaginary (vertical) dial, measures, on this line, a point distant 2 finger-widths from the reference point (the center of the dial), and thus locates the gun pit.

A combination of the two methods may be necessary when, in using the second method, the reference point is not readily identified. Thus, in the case mentioned, it may, for example, be necessary to say: **Reference point at 1 o'clock, clump of trees on hill crest.**

In both methods the sequence of commands laid down should be observed.

Various devices for pointing out indistinct targets may be improvised and used.

THE USE OF COVER.

142. The recruit should be given careful instruction in the individual use of cover.

It should be impressed upon him that, in taking advantage of natural cover, he must be able to fire easily and effectively upon the enemy; if advancing on an enemy, he must do so steadily and as rapidly as practicable, taking advantage of any available cover while setting the sights, firing, or advancing.

To teach him to fire easily and effectively, at the same time concealing himself from the view of the enemy, he is practiced in simulated firing in the prone, sitting, kneeling, and crouching positions, from behind hillocks, trees, heaps of earth or rocks, from depressions, gullies, ditches, doorways, or windows. He is taught to fire around the right side of his concealment whenever practicable, or, when this is not practicable, to rise enough to fire over the top of his concealment.

When these details are understood, he is required to select cover with reference to an assumed enemy and to place himself behind it in proper position for firing.

143. The disadvantage of remaining too long in one place, however good the concealment, should be explained. He should be taught to advance from cover to cover, selecting cover in advance before leaving his concealment.

It should be impressed upon him that a man running rapidly toward an enemy furnishes a poor target. He should be trained in springing from a prone position behind concealment, running at top speed to cover and throwing himself behind it. He should also be practiced in advancing from cover to cover by crawling, or by lying on the left side, rifle grasped in the right hand, and pushing himself forward with the right leg.

He should be taught that when fired on while acting independently, he should drop to the ground, seek cover, and then endeavor to locate his enemy; also that in the sun he is visible to a much greater degree than when in the shade.

The instruction of the recruit in the use of cover is continued in combat exercises of the squad and platoon, but he must then be taught that the proper advance of the platoon or troop and the effectiveness of its fire is of greater importance than the question of cover for individuals *should the two considerations conflict.* He should also be taught that he may not move about or shift his position in the firing line except to get a better view of the target.

OBSERVATION.

144. In order to develop the faculty of rapid and accurate observation, which is of great importance in campaign, the recruit should be trained in taking notice of his surroundings, at first from selected positions and later at the various gaits.

He should be practiced under various conditions of weather in recognizing colors and forms; in pointing out and naming military features of the ground; in observing the effect of the direction of light on distinctness of objects; in recognizing at gradually increasing distances the animate and inanimate objects ordinarily met with in the field; in counting distant objects; and in estimating the size of groups, such as herds of animals and bodies of troops.

MANUAL OF THE PISTOL.

145. Instruction under this head is first given on foot, the recruit having previously been made familiar with the mechanism of the pistol, the names of the principal parts, and the method of cleaning, assembling, and operating it.

When a lanyard is used the snaps are attached to the butt of the pistol and the magazine, the lanyard is passed over the head, and the sliding loop drawn snug against the right armpit. The lanyard should then be of just such length that the arm can be extended without constraint.

For dismounted instruction with the pistol the troopers may be formed with or without intervals.

During *instruction* in the manual of the pistol given when dismounted *with intervals* each trooper terminates the first execution of **raise pistol** by carrying his right foot 24 inches to the right and placing his left hand in the position of his bridle hand. This position is then retained until **return pistol** is executed, when the position of **attention** is resumed.

At *all other times* when movements in the manual of the pistol are executed dismounted the left hand is raised to the position of the bridle hand whenever used to manipulate the mechanism and is then dropped again to the side.

146. Except in the act of firing, the automatic pistol, when actually on the person, whether loaded or unloaded, will be carried cocked and locked. At all other times the hammer will be lowered *fully down.*

147. The pistol being in the holster, to raise pistol: **1. Raise, 2. PISTOL.**

Raise: Unbutton the flap of the holster with the right hand and grasp the stock, back of the hand outward.

PISTOL: Draw the pistol from the holster; reverse it, muzzle up, the hand holding the stock with the thumb and last three fingers, forefinger outside the guard, barrel to the rear and inclined to the front at an angle of 30°, hand as high as the neck and 6 inches in front of the point of the right shoulder. This is the position of **raise pistol**. (Fig. 32.)

FIG. 32, par. 147.

148. Being at **raise pistol**, to inspect pistol: 1. **Inspection**, 2. **PISTOL**.

(*a*) **When a magazine is in the pistol**: Push down the safety lock and lower the right hand to within easy reach of the left, pistol pointed upward and to the right front at an angle of about 30°; grasp the corrugations of the slide with the left thumb and forefinger, thumb to the right; thrust upward with the right hand, thus drawing back the slide until the slide stop is engaged (fig. 35); resume **raise pistol** (fig. 33).

FIG. 33, par. 148 (*a*).

FIG. 34, par. 148 (*b*).

(*b*) **When no magazine is in the pistol**: Push down the safety lock and lower the pistol to the left hand, rotating the pistol so that the sights move to the left, barrel pointing downward and to the left front, stock pointing upward and to the right front; with the left thumb and forefinger grasp the corrugations of the slide, back of the left hand down (fig. 34); change the grasp of the right hand slightly until the

thumb presses against the rounded surface of the slide stop; thrust downward and to the left front with the right hand, thus drawing back the slide, and at the same time press the slide stop with the right thumb against the slide until it engages; resume **raise pistol.**

Inspection pistol is never executed with a loaded pistol or with a loaded magazine in the pistol.

149. 1. **Return,** 2. **PISTOL.**

(*a*) Being at **raise pistol;** lock the pistol, if not locked; lower the pistol to the holster, reversing it, muzzle down, back of the hand to the right; raise the flap of the holster with the right thumb; insert the pistol in the holster and thrust it home; button the flap of the holster with the right hand.

(*b*) Being at **inspection pistol;** (with a magazine in the pistol) lower the pistol to the left hand and grasp the slide as prescribed for inspection pistol without magazine (par. 148–*b*, fig. 22); thrust downward and to the left front with the right hand, thus relieving the pressure on the slide stop, and at the same time disengage the slide stop with the right thumb; release the slide; reverse and lock the pistol; place it in holster as prescribed in (*a*). If there is no magazine in the pistol, lower it to the bridle hand as in **load** (par. 151); draw back the slide and release it; lock the pistol and place it in the holster.

When the last shot is fired the slide stop engages automatically. **Return pistol** is then executed as from inspection pistol (*b*).

150. Being at raise pistol, to insert a magazine in the pistol: 1. **Insert,** 2. **MAGAZINE,** or 2. **LOADED MAGAZINE.**

(*a*) When a magazine is in the pistol: Lower the pistol into the left hand, rotating it so that the sights move to the left; grasp the slide with the left hand, back of the hand down, barrel pointing downward to the left front, stock pointing upward to the right front; release the magazine catch with the middle finger of the left hand; withdraw the magazine with the right hand; insert the designated magazine and resume **raise pistol.** If there be no empty space in the magazine pocket when the magazine is withdrawn from the pistol, the magazine may be held between the left thumb and the stock of the pistol until the magazine has been taken from

the pocket and inserted; the magazine withdrawn from the pistol is then inserted in the magazine pocket.

Whenever the magazine catch is released, the right hand should be so placed as to limit the motion of the magazine and prevent its falling out.

(*b*) **When no magazine is in the pistol:** Lower the pistol into the left hand and grasp it as before; insert the designated magazine and resume **raise pistol.**

A loaded magazine will never be inserted without specific command.

151. Being at **raise pistol** with a loaded magazine in the pistol, to load: **LOAD**: Push down the safety lock and lower the pistol to the bridle hand as prescribed for inspection pistol when a magazine is in the pistol (par. 148 (*a*)); operate the slider, engage the safety lock with the right thumb, and raise pistol. (Fig. 35.)

FIG. 35, par. 151.

To simulate loading for instruction, first withdraw the empty magazine.

The command load may be given in connection with the insertion of the magazine, for example: 1. **Insert,** 2. **LOADED MAGAZINE;** 3. **LOAD.**

After inserting magazine, reverse the pistol and load as above prescribed.

152. Being in any position, to eject the cartridge from the receiver: **UNLOAD.**

Pass the pistol into the left hand as in **insert magazine;** release the magazine catch with the middle finger of the left hand, slightly disengaging the magazine; push down the safety lock with the right thumb; operate the slide to eject the cartridge; engage the magazine; raise and lock the pistol.

153. Being in any position, to withdraw the magazine from the pistol: **WITHDRAW MAGAZINE.**

Handle the pistol as in **insert magazine;** release the magazine catch; withdraw the magazine and execute **raise pistol.**

Recruits are taught the motions of loading and firing without cartridges, and preferably without a magazine in the pistol, to avoid wear on the magazine lips. Loading and pointing practice should be had at all gaits.

154. The hammer is always lowered preparatory to placing the pistol in the arm rack or other place of deposit.

155. Being at raise pistol, to lower the hammer:

(*a*) **Using both hands:** Push down the safety lock; assume the position of load; seat the right thumb firmly on the hammer and hold it there; raise the left hand to the right and press the grip safety with the left thumb; insert the forefinger inside the trigger guard; press the trigger and carefully let the hammer down with the right thumb. Resume raise pistol.

(*b*) **Using but one hand:** Raise the right hand until the muzzle of the pistol is well above the head; disengage the safety lock; seat the ball of the right thumb firmly on the hammer; bear down the grip safety by pressure on the hammer; press the trigger and carefully let down the hammer with the right thumb.

156. **To charge the magazine:** Hold the magazine in the left hand, open end up, rounded side to the right. Take the cartridge in the right hand, thumb on the rim, bullet end pointing to the right; place the rim on the end of the magazine follower; force down the magazine spring and slip the cartridge to the left of the magazine. The next cartridge is similarly slipped in by placing it on the cartridge just inserted and forcing down the spring.

The magazine may be charged with any number of cartridges from one to seven.

Before dismissing the squad, pistols will be inspected, and if found loaded, will be unloaded and magazines withdrawn to prevent loaded or partially loaded magazines being left in the pistol. Except at target practice, on guard duty, or active service, the pistol is habitually carried unloaded with empty magazine.

EMPLOYMENT OF THE PISTOL.

157. The pistol is primarily a weapon for use at very close range. Its characteristic employment by cavalry is in mounted firing from a horse moving at a rapid gait. Under such conditions its effectiveness is almost negligible at ranges over 25 yards against individuals or over 50 yards against a line in

close order except in the hands of exceptionally skilled shots, and the effectiveness rapidly decreases at ranges over 5 to 10 yards. These limitations on the use of the pistol are due not to its short range as a weapon but to the difficulties of directing it accurately under the conditions of use. While the pistol is a weapon employing fire action, its tactical employment is more nearly analogous to that of either the saber or bayonet than to that of the rifle.

158. From the preceding paragraph it results that there is no need, in connection with the employment of the pistol as a weapon of mounted combat, for commands that purport to designate a target or to indicate range or other details for the direction of fire. The only commands ordinarily needed are those required for instruction purposes. (See Small-Arms Firing Manual.)

159. The effectiveness of the individual trooper in mounted pistol combat depends upon:

(*a*) Thorough familiarity with the weapon and facility in manipulating its mechanism under all conditions. This is acquired by training in the **Manual of the Pistol.** Constant practice is necessary in rapidly drawing the pistol from its holster, loading it, withdrawing magazine, and inserting magazine, at first at a halt, later in motion, and finally at rapid gaits.

(*b*) Skill in firing the pistol. This is acquired by actual practice in the preliminary exercises and range firing as prescribed in the **Small-Arms Firing Manual.**

(*c*) Control of the horse. This is acquired in the **School of the Trooper.**

(*d*) The thorough inculcation in the trooper of the habit of *withholding his fire until within close range.* This can well be accomplished in individual training by exercises in firing or simulating fire at one or more silhouette targets. The trooper approaches at a gait graduated in accordance with his state of training and is required to withhold his fire until he passes a certain line.

160. The other elements that enter into effective use of the pistol as a mounted weapon relate to the formations and tactics employed rather than to individual training. They pertain, therefore, to collective rather than individual instruction.

161. If any command be required in connection with the characteristic use of the pistol in mounted combat, it consists simply of an indication of the moment at which fire may begin. For this purpose the command **COMMENCE FIRING** may be employed in any case for which a command may be desirable.

MANUAL OF THE SABER, DISMOUNTED.

162. For this instruction, dismounted, the saber in the scabbard is carried in the left hand.

In the position of attention the saber will be held upright by the side, guard to the front, the shoe of the scabbard resting on the ground close to the left foot and just in front of the heel. The left arm will be extended, the fingers and thumb grasping the scabbard, back of the hand outward.

In the necessary movements on foot with the saber in hand the saber is carried with the hilt to the front and higher than the shoe of the scabbard.

Officers, dismounted, may carry the saber in the hollow of the left arm, elbow bent, forearm horizontal, guard of the saber to the front, blade vertical. An officer or noncommissioned officer habitually draws saber before giving any commands involving the use of that weapon by those under him. Officers and noncommissioned officers out of ranks draw saber only on occasions when the men draw saber unless otherwise prescribed. The saber may be drawn for signaling.

163. The saber is intended for mounted combat. The instructor will impress upon the recruit from the first that the use of the saber in war is ordinarily limited to occasions of mounted combat, and that instruction on foot in its use is merely preliminary to the mounted training which the recruit will receive later.

164. For dismounted instruction, if the squad is in ranks the instructor causes intervals or distances (pars. 85–88) to be taken before drawing saber.

165. 1. **Draw,** 2. **SABER.**

At the command **draw,** grasp the scabbard with the left hand about 4 inches from the mouth, place the left hand against the thigh, and carry the hilt to the front; turn the head slightly to the left without deranging the position and glance at the saber knot; engage the right wrist in the saber

knot and give it two turns inward to secure it; grasp the hilt with the right hand and draw the saber about 6 inches from the scabbard and look to the front.

At the command **saber**, draw the saber quickly, raising the arm to the front and upward to its full length, saber in prolongation of the arm. Make a short pause with the saber raised, then bring it down with the blade against the hollow of the right shoulder, guard to the front, right hand at the hip, the third and fourth fingers on the back of the grip and the elbow back.

The left hand holds the scabbard as at attention.

This is the position of **carry saber dismounted.**

166. 1. **Return,** 2. **SABER.**

At the command return, grasp the scabbard as in draw saber and carry the opening to the front. Carry the saber to the front with arm half extended until the thumb is about 6 inches in front of the chin, the blade vertical, guard to the left, the thumb extended along the side of the grip, the little finger joined with the others.

At the command **saber**, move the wrist to opposite the left shoulder, lower the blade and pass it across and along the left arm, point to the rear. Turn the head to the left, fixing the eyes upon the opening of the scabbard; raise the right hand and insert the blade in the scabbard and push it home. Disengage the wrist from the saber knot and resume the position of attention.

167. Being at **carry saber**: 1. **Present,** 2. **SABER.**

Without changing the position of the left hand, execute at the command **saber** what is prescribed in par. 166 at the command **return**, except that the grip is held in the full grasp. The saber is said to be held in the full grasp when all four fingers grasp the grip, the thumb extending along the back in the groove, the fingers pressing the back of the grip against the heel of the hand.

Officers at the command: 1. **Present**, execute **present saber** as described above; at the command: 2. **SABER**, they lower the saber until the point is 12 inches from the ground and directed to the front, guard to the left, right arm straight, hand beside the thigh. **Mounted**, the point is lowered to the level of the stirrup.

168. Being at **carry saber**: 1. **Port**, 2. **SABER.**

Carry the right foot about 24 inches to the right, bring the left hand to the position of the bridle hand and raise the saber to a vertical position, guard to the front, grip held in the full grasp, right hand about 12 inches in front of the shoulder.

To resume the **carry**: 1. **Carry**, 2. **SABER.**

169. Being at **carry saber**, or in any position: **GUARD.**

Carry the right foot about 24 inches to the right and bend knees to simulate the position mounted. Incline the body to the front from the waist (not the hips). Let the blade fall to

FIG. 36, par. 169.

the front to a position nearly horizontal, elbow well away from the body, forearm and saber forming one straight line, guard to the right, point at the height of the adversary's breast, the left hand in the position of the bridle hand. (Fig. 24.)

170. Being at **carry saber**: 1. **Inspection**, 2. **SABER.**

Carry the right hand upward, arm half extended until the thumb is at the height of the chin, grip held in the full grasp, blade vertical, guard to the left. Make a slight pause, then loosen the grasp on the grip and turn the saber with the guard to the right. Again make a slight pause, then resume the first position and return to the carry.

171. Saber exercise is conducted, and instruction given, as prescribed in the **Saber exercise.** For **Manual of the Saber Mounted**, *see* par. 245.

Section 4. School of the Trooper, Mounted.

General Provisions.

172. *Object.*—The primary object of this school is to train the trooper in horsemanship and in the ready use of his weapons while mounted.

173. *The instructor.*—It is essential that the instructor (par. 37) be a skilled and experienced horseman, properly mounted. He should always supplement the original explanation of a movement by executing it himself, so that the recruits may actually see the result that is desired and the means by which it is effected.

174. *Cautions to instructors.*—The instructor must first develop the confidence of the recruit, give him a proper seat, and make him supple on the horse. Progress should be suited to his capacity and exempt him as far as practicable from falls or other accidents. Instruction in the use of the aids and in the means employed to train the horse to obey them will follow.

When the recruit has acquired confidence in his ability to ride and control his horse he will be instructed in the use of arms mounted.

Instruction is given individually; every new movement is made the object of a particular lesson given to each trooper in turn.

During the exercise the instructor avoids general remarks and (in so far as possible) unfamiliar terms; in the correction of faults he addresses by name those committing them.

He passes frequently from one trooper to another repeating advice and endeavoring to impress upon the troopers the principles embodied in the regulations. In doing this he need not use the language of the text.

The instructor may be on foot or mounted. For the first lessons it is advantageous to remain on foot so as better to explain movements and correct faults.

Steady, well-trained horses are selected for the first lessons. The troopers exchange horses from time to time during the lesson on indication from the instructor.

There should be frequent rests, especially with recruits. During these rests advantage may be taken of the opportunity to question the troopers respecting the instruction they have received.

In all exercises the instructor varies the gait so as not to weary the troopers or the horses. The instruction is conducted without hurry. The daily work begins and ends at the walk.

175. *The standard required of troopers.*—To be a good military horseman each trooper should—

(*a*) Have a strong seat.

(*b*) Be able to apply correctly the aids by which a horse is controlled.

(*c*) Be capable of covering long distances on horseback with the least possible fatigue to his horse and to himself.

(*d*) Be able to use his horse to the utmost advantage in a mounted fight.

(*e*) Be capable of riding across country.

(*f*) Under proper directions, be able to train an unbroken horse in garrison and in the field, understand how to detect and treat the minor ailments to which the horse is liable, and be a good groom.

All officers, in addition to being good military horsemen and instructors in riding, must be able to train remounts and to direct their training.

177. *General provisions.*—For the preparatory exercises the horses are saddled and equipped with the snaffle bit only, saddles stripped. Spurs are not worn.

These exercises are conducted at first in a riding hall or on an inclosed course out of doors.

References to the **riding hall** are to be understood as ordinarily applying equally to any out-of-doors inclosure or to the space included in any course marked off for instruction in equitation (pars. 269, 296).

At first, the troopers, dismounted, lead their horses to the riding hall and return them to the stable in the same manner. When they have received sufficient instruction they go and return mounted.

As soon as the instruction has advanced sufficiently to permit the use of such commands and methods, the instructor will

confine himself to the commands and means prescribed in the School of the Trooper.

TO FOLD THE SADDLE BLANKET.

178. The blanket, after being well shaken, will be folded into six thicknesses, as follows: Hold it well up by the two corners, the long way up and down; double it lengthwise (so the fold will come between the "U" and "S"), the folded corner (middle of blanket) in the left hand; take the folded corner between the thumb and forefinger of the right hand. thumb pointing to the left; slip the left hand down the folded edge two-thirds its length and seize it with the thumb and second finger; raise the hands to the height of the shoulders, the blanket between them extended; bring the hands together, the double fold falling outward; pass the folded corner from the right hand into the left hand, between the thumb and forefinger, slip the second finger of the right hand between the folds and seize the double folded corner; turn the left (disengaged) corner in and seize it with the thumb and forefinger of the right hand, the second finger of the right hand stretching and evening the folds; after evening the folds grasp the corners and shake the blanket well in order to smooth the folds; raise the blanket and place it between the chin and breast; slip the hands down half way, the first two fingers outside, the other fingers and thumb of each hand inside, seize the blanket with the thumbs and first two fingers and let the part under the chin fall forward; hold the blanket up, arms extended, even the lower edges, seize the middle points between the thumbs and forefingers, and flirt the outside part over the right arm; the blanket is thus held before placing it on the horse.

While retaining the general method of folding the blanket as above indicated, troop commanders will require the blanket to be refolded frequently with a view to equalizing the wear on the different sections of the blanket.

TO PUT ON THE BLANKET AND SURCINGLE.

179. The instructor commands: **BLANKET.**

Approach the horse on the near (left) side, with the blanket folded and held as just described; place it well forward on

his back by tossing the part of the blanket over the right arm to the off (right) side of the horse, still keeping hold of the middle points; slide the blanket once or twice from front to rear to smooth the hair. Being careful to raise the blanket in bringing it forward, place the blanket with the forefinger of the left hand on the withers and the forefinger of the right hand on the backbone, the blanket smooth; it should then be well forward with the edges on the left side; remove the locks of mane that may be under it; pass the buckle end of the surcingle over the middle of the blanket and buckle it on the near side a little below the edge of the blanket.

TO PUT ON AND TAKE OFF THE WATERING BRIDLE.

180. The instructor commands: **BRIDLE.**

Take the reins in the right hand, the bit in the left; approach the horse on the near side, slip the reins over the horse's head and let them rest on his neck; reach under and engage the snap in the right halter ring; insert the left thumb in the side of the horse's mouth above the tush and press open the lower jaw; insert the bit and engage the snap in the left halter ring. The bit should hang so as to touch, but not draw up, the corners of the mouth. At the command **unbridle,** pass the reins over the horse's head and disengage the snaps.

TO SADDLE.

181. (*a*) (McClellan saddle.) For instruction the saddle may be placed four yards in rear or front of the horse. The stirrups are crossed over the seat, the right one uppermost; then the cincha and cincha strap are crossed above the stirrups, the strap uppermost. The blanket having been placed as previously explained, the instructor commands: **SADDLE.**

Seize the pommel of the saddle with the left hand and the cantle with the right, approach the horse on the near side from the direction of the croup and *place the center of the saddle on the middle of the horse's back,* the end of the side bar about three-finger widths behind the point of the shoulder blade; let down the cincha strap and cincha, pass to the off side, adjust the cincha and straps, and see that the blanket

is smooth; return to the near side, raise the blanket slightly under the pommel arch so that the withers may not be compressed; take the cincha strap in the right hand, reach under the horse and seize the cincha ring with the left hand, pass the end of the strap through the ring from underneath (from inside to outside), then up and through the upper ring from the outside, if necessary, make another fold in the same manner.

The strap is fastened as follows: Pass the end through the upper ring to the front; seize it with the left hand, place the fingers of the right between the outside folds of the strap, pull from the horse with the right hand and take up the slack with the left; cross the strap over the folds, pass the end of it with the right hand underneath and through the upper ring back of the folds, then down and under the loop that crosses the folds and draw it tightly; weave the ends of the strap into the strands of the cincha.

Another method of fastening the cincha strap is as follows: Pass the end through the upper ring to the rear; seize it with the right hand; place the fingers of the left hand between the outer folds of the strap; pull from the horse with the left hand and take up the slack with the right; pass the end of the strap underneath and draw it through the upper ring until a loop is formed; double the loose end of the strap and push it through the loop and draw the loop taut. The free end should be long enough to be seized conveniently with the hand.

Having fastened the cincha strap, let down the right stirrup and then the left.

The surcingle is then buckled over the saddle, and should be a little looser than the cincha.

The cincha when first tied should admit a finger between it and the belly. After exercising for a while the cincha will be found too loose and should be tightened.

(*b*) (Service saddle, model of 1912.) Troops equipped with this model will saddle as prescribed for the McClellan saddle with the following modifications:

Place the saddle on the blanket so that the front edge of the side bar approaches the shoulder blade without pressing upon it. After the saddle has been so placed, let down the girth; pass to the off side, adjust the girth and saddle skirt,

and see that the blanket is smooth, return to the near side and push the blanket well up into the pommel arch; reach under the horse, seize the girth with the left hand and bring up its free end to the near side of the saddle; with the right hand raise the saddle skirt and buckle the girth straps to the corresponding buckles of the girth, beginning with the forward strap, lower the saddle skirt and let down the stirrups, beginning with the right stirrup. The girth should ordinarily be about 4 inches in rear of the point of the elbow.

182. To approximate the length of the stirrup straps before mounting, they are adjusted so that the length of the stirrup strap, including the stirrup, is about 1 inch less than the length of the arm, fingers extended.

TO UNSADDLE.

183. The instructor commands: **UNSADDLE.**

(*a*) (McClellan saddle.) Stand on the near side of the horse; unbuckle and remove the surcingle; cross the left stirrup over the saddle; loosen the cincha strap and let down the cincha; pass to the off side, cross the right stirrup, then the cincha; pass to the near side, cross the cincha strap over the saddle; grasp the pommel with the left hand, the cantle with the right, and remove the saddle over the croup and place it in front or rear of the horse as may be directed, pommel to the front; grasp the blanket at the withers with the left hand and at the loin with the right, remove it in the direction of the croup, the edges falling together, wet side in; and place it on the saddle, folded edge on the pommel.

If in the stable, place the saddle on its peg when taken off the horse.

(*b*) (Service saddle, model of 1912.) Stand on the near side of the horse: cross the left stirrup over the saddle; raise the saddle skirt with the left hand, and with the right unbuckle the girth straps, beginning with the rear strap; let down the girth; pass to the off side; cross the right stirrup and then the girth over the saddle; pass to the near side, grasp the pommel with the left hand, the cantle with the right, and remove and dispose of the saddle as prescribed in (*a*).

The service saddle, model 1912, should be hung on a bracket sufficiently wide for the saddle to rest on its side bars. If a narrower support is used, the saddle will rest on the low point in the leather seat and become misshapen.

TO PUT ON AND TAKE OFF THE BIT AND BRIDOON BRIDLE (MODEL 1909).

184. Before bridling the curb chain is unhooked on the near side The instructor commands: **BRIDLE.**

Take the reins in the right, the crownpiece in the left hand; approach the horse on the near side, passing the right hand along his neck; slip both reins over his head and let them rest on his neck; take the crownpiece in the right hand and the lower left branch of the curb bit in the left hand, the forefinger against the mouthpiece, the snaffle bit above and resting on the mouthpiece of the curb bit; bring the crownpiece in front of and slightly below its proper position; insert the thumb into the side of the mouth above the tush; press open the lower jaw and insert the bits by raising the crownpiece; with the left hand draw the ears gently under the crownpiece, beginning with the left ear; arrange the forelock, secure the throatlatch, and hook up the curb chain on the near side below the snaffle bit.

The bridle is adjusted as prescribed in par. 302.

The throatlatch should admit four fingers between it and the throat.

185. At the discretion of the instructor, the halter may be taken off before bridling, the reins being first passed over the neck; the hitching strap, if not left at the manger or picket line, is tied around the horse's neck; if the horse be saddled, in the near pommel ring.

186. The instructor commands: **UNBRIDLE.**

Stand on the near side of the horse; pass the reins over the horse's head, placing them on the bend of the left arm; unhook the curb chain on the near side; unbuckle the throatlatch, grasp the crownpiece with the right hand and, assisting with the left hand, gently disengage the ears; gently disengage the bits from the horse's mouth with the left hand by lowering the crownpiece; place the crownpiece in the palm of

the left hand, take the reins in the right hand, pass them together over the crownpiece, make two or three turns around the bridle, then pass the bight between the brow band and crownpiece and draw it snug.

The bridle is hung up by the reins or placed across the saddle on the blanket.

If the horse has no halter on, unbridle and push the bridle back so that the crownpiece will rest on the neck behind the poll until the halter is replaced.

187. Stand to horse: At this command each trooper places himself, facing to the front, on the near side of the horse, opposite his head, and takes the position of **attention**, except that the right hand, nails down, grasps the reins, the forefinger separating them, about 6 inches from the bit. The bights of the reins rest on the neck near the pommel of the saddle.

188. To lead out: The troopers being at **stand to horse**, to leave the stable or picket line, the instructor commands: **LEAD OUT.**

Each trooper, holding his right hand well up and firm, leads his horse, without looking at him, to the place designated by the instructor.

189. Upon entering the riding hall or inclosure the instructor disposes the troopers upon a line at intervals of 3 yards, the troopers at **stand to horse**, the horses correctly disposed and perpendicular to the line of troopers.

A horse is correctly disposed when he stands squarely on all four feet, having his head, neck, and body in line.

190. Stirrups: The stirrups are properly adjusted when, the trooper being properly seated with the feet removed from the stirrups and the legs falling naturally, the tread of the stirrups is about 1 inch above the top of the heel of the shoe.

The stirrups should bear only the weight of the lower leg; about one-third of the foot should be inserted in the stirrup, so that the ball of the foot rests on the tread, the heel lower than the toe.

The flat of the stirrup strap should rest against the leg of the mounted trooper. To accomplish this the trooper's toe should be so inserted in the stirrup as to place the front branch of the latter on the outside. By the front branch of the stirrup is meant the forward branch as the stirrup hangs before the trooper mounts.

Placing too much weight on the stirrup disturbs the seat and contracts the leg, hindering its freedom of action.

If the toe is not inserted far enough the trooper risks losing his stirrup; if inserted too far suppleness is diminished.

The heel is carried naturally lower than the toe if the ankle joint is not rigid.

For the extended gallop, in the charge, for the use of weapons, and for leaping obstacles the foot is inserted fully in the stirrup.

191. To mount: Being at **stand to horse, MOUNT.**

(*a*) Face to the right, drop the right rein, grasp the left rein in the right hand, take two steps to the right, sliding the hand along the left rein, make a half face to the left when opposite the girth; with the aid of the left hand take both reins in the right, forefinger between the reins, the right hand on the pommel, the reins coming into the hand on the side of the forefinger, and held so as to feel lightly the horse's mouth, the bight falling on the off side. Place the left foot in the stirrup, assisted by the left hand if necessary, and bring the left knee against the saddle; grasp a lock of the mane with the left hand, lock coming out between the thumb and forefinger.

(*b*) Spring from the right foot, keeping the hands firmly in place, the left knee bent and pressed against the saddle, bring the right foot by the side of the left, body inclining slightly forward; pass the right leg, knee bent, over the croup without touching it, sit down lightly in the saddle; let go of the mane; insert the right foot in the stirrup, assisted by the right hand if necessary; take a rein in each hand, the rein coming into the hand under the little finger and passing out over the second joint of the forefinger, the thumbs closed on the reins, the bight of the reins falling to the right.

The reins should be so held that the trooper feels lightly the horse's mouth, the fingers closed until the nails lightly touch the palms of the hands; the reins well up in the crotch of the fingers; the backs of the hands vertical and in prolongation of the forearm; the wrists flexible; the elbows near the body and low, so that the forearms will be in prolongation of the reins; the hands about 9 inches apart.

The instructor takes care that the recruit in adjusting the reins provokes no movement of the horse and deranges in no manner the position of the horse's head.

The instructor cautions the trooper to avoid touching the horse with the left toe in mounting; this fault begets nearly all the resistance of horses to standing quietly while being mounted.

The modifications incident to mounting and dismounting a horse equipped with the double snaffle or bit and bridoon are indicated in pars. 271, 303, and 307. The troopers are also trained to mount on the right side.

192. To dismount: Being halted, **DISMOUNT.**

(*a*) Seize the reins with the right hand in front of and near the left, forefinger between the reins, the reins entering the hand from the side of the forefinger; drop the reins with the left hand; place the right hand on the pommel; grasp a lock of the mane with the left hand, the lock coming out between the thumb and forefinger; take the right foot out of the stirrup.

(*b*) Rise upon the left stirrup, pass the right leg, knee bent, over the croup without touching the horse, and bring the right foot by the side of the left, the left knee against the saddle, the upper part of the body inclined slightly forward; descend lightly to the ground and take the position of **stand to horse.**

The troopers are also trained to dismount on the right side.

193. Commanding officers may authorize the following alternative method of mounting and dismounting by officers and enlisted men on all occasions except those when it is required that mounting and dismounting be executed in unison at the corresponding command (par. 354). Instruction in the methods authorized in this paragraph is optional.

Being at **stand to horse,** at the command **MOUNT,** face to the right, drop the right rein, take a step to the right to be opposite the shoulder of the horse; at the same time sieze the bights of the reins in the right hand and pull them taut enough to give a gentle, even bearing on the horse's mouth; grasp the reins with the left hand, with the little finger between them, and the bight coming out between the thumb and forefinger, which also hold a lock of the mane. Place the left foot in the

stirrup, assisted by the right hand if necessary, and bring the left knee against the saddle.

Place the right hand upon the cantle, rise by an effort of the right leg, aided by the arms, the left knee bent and pressed against the saddle, the upper part of the body inclined slightly forward to keep the saddle from turning; bring the right foot by the side of the left; change the right hand to the pommel, pass the right leg, knee bent, over the croup without touching it, and sit down lightly in the saddle. Put the right foot in the stirrup, assisted by the right hand if necessary.

At the command **DISMOUNT**, pass the right rein into the left hand and grasp with this hand a lock of the mane, place the right hand on the pommel, and remove the right foot from the stirrup; pass the right leg, knee bent, over the croup without touching the horse and bring the right foot by the side of the left, the left knee against the saddle, the upper part of the body inclined slightly forward, right hand on the cantle. Descend lightly to the ground and take the position of **stand to horse.**

194. To take the reins in one hand and to separate them: At the command **IN LEFT HAND TAKE REINS**, place the left hand opposite the middle of the body, pass the right rein into the left hand, separating it from the left rein by the little finger; let the right hand fall by the side.

195. At the command **IN BOTH HANDS TAKE REINS**, grasp the right rein with the right hand and replace the hands 9 inches apart.

The reins are taken in the right hand and again separated in a similar manner.

196. To adjust the reins the trooper brings the wrists together and grasps with one hand, above and near the opposite thumb, the rein that he desires to shorten.

197. The instructor causes the reins to be dropped and retaken by the commands **DROP REINS** and **REINS.**

At the first command, the trooper drops the reins behind the pommel and lets the hands fall by the side.

The reins are dropped as an exceptional measure, and always with precaution against accident.

198. Position of the trooper, or attention (mounted): The position described below should be considered a standard toward which all troopers should gradually approximate.

The buttocks bearing equally upon and well forward in the middle of the saddle.

The thighs turned without constraint upon their flat side, clasping the horse evenly and stretched only by their own weight and that of the lower legs.

The knees bent and flexible.

The lower legs falling naturally, the calves in contact with the horse without pressure, the toes dropping naturally when the trooper is without stirrups.

The back supple and never hollowed.

The upper part of the body easy, free, and erect.

The shoulders thrown back evenly.

The arms free, the elbows falling naturally.

The head erect and turned to the front, but without stiffness.

Eyes alert, well up, and directed to the trooper's front.

The reins held as heretofore prescribed.

This position may be modified by the instructor to suit varying conditions and unusual conformations. When not at attention, the head and eyes are directed so as best to favor alertness and observation. In other respects the position should be practically unchanged.

199. The body and lower legs are movable and should be under the control of the trooper, either acting intermittently as aids for guiding the horse or as a means of binding the rider to the horse while following his movements.

The thighs, on the other hand, should remain fixed immovably to the saddle, except while posting at the trot. This fixity should be obtained not by the pressure of the knees but by the clinging of the buttocks, which is secured by the suppleness of the loins and the relaxation of the thighs. It is acquired very rapidly by daily "*rotation of the thighs*," which gradually presses the large thigh muscles to the rear and permits the femur to rest solidly against the saddle.

The trooper should sit with his buttocks well under the upper part of his body and especially avoid bowing the back by thrusting the buttocks to the rear and the lower part of the spine to the front. Sitting well forward in the middle

of the saddle will tend to assist the trooper in avoiding the defect just referred to. If the buttocks are thrust back too much the trooper can not conform to the movements of the horse and carries forward the upper part of his body.

If the thigh is too nearly horizontal, the trooper is doubled up and his power of action diminished; if the thigh is too nearly vertical, the trooper is on the crotch and lacks ease.

To sum up: The trooper should take a relaxed sitting position, squarely on his buttocks, with the thighs inclined downward.

The various defects of position are overcome by suitable suppling exercises (pars. 209–220).

200. *The aids.*—The legs, the reins, and the weight are the means of controlling the horse in riding. They are called the aids.

201. The legs: The legs serve to urge the horse forward, to increase his pace or gait, and to engage the hind quarters or move them laterally. The legs act by the pressure of the calves. If pressure alone is insufficient the trooper increases the action by blows with his calves.

It is essential to obtain from the horse perfect obedience to the action of the legs. He should respond to the simultaneous and equal action of both legs by engaging his hindquarters and moving forward; to the predominant action of one leg by moving his haunches to the opposite side.

202. The reins: The reins serve to prepare the horse to move, to decrease or increase his pace, to change the gait, or to change direction.

Contact is a light bearing of the mouth of the horse on the hand of the rider. It should be constantly maintained.

The reins are held in the full hand, the thumb pressing them lightly upon the second joint of the forefinger. By means of closing and relaxing the fingers and flexing the wrist, arm, and shoulder, the trooper, while maintaining contact and keeping the reins taut, follows easily the movements of the head of the horse without anticipating or interfering with these movements. The hand is then said to be passive. It is kept so as long as the trooper is not required to change the pace, gait, or direction.

203. The direct rein: When the trooper, with the hands separated and the reins adjusted, closes his fingers upon the reins without raising the hands he exercises an action from front to rear, called the effect of the direct reins. This effect, when on one rein only, is called that of the **right (or left) direct rein.**

204. The leading rein: When the trooper carries the right hand to the right and forward in a manner to preserve contact but not to increase pressure on the bit the effect is called that of **the right leading rein.**

The back of the hand should remain vertical, the wrist in prolongation of the forearm, the elbow remaining near the body.

The horse's head and neck are drawn to the right, the shoulders follow, and he turns to the right.

205. The bearing rein: When the trooper carries the right hand forward, upward, and to the left in a manner to preserve contact, but not to increase pressure on the bit, the effect is said to be that of **the right bearing rein.**

The back of the hand should remain vertical, the wrist in prolongation of the forearm.

The horse's head is **turned slightly to the right,** but the effect is to the left; the neck bends and is convex to the left and is followed by the shoulders. The horse turns to the left.

The action of the bearing rein is much more powerful than that of the leading rein, and is used to the exclusion of the latter to turn the horse when riding with the reins in one hand.

206. The indirect rein of opposition: When the trooper carries the right hand to the left in a manner to press the shoulders to the left and to produce a diagonal traction on the rein in the direction of the left shoulder or haunch the effect is called that of the **right indirect rein of opposition.**

Its effect may be produced **in front of the withers** if the hand be slightly raised; **in rear of the withers** if the hand be slightly lowered. It is frequently used by the trooper when riding with one hand (as he must do in order to use his weapons), and its effect should be studied and practiced from the beginning.

207. Manner of applying the aids: **The action of the reins** and legs and weight should not be continuous. The trooper

alternately closes and relaxes the fingers, the hands preserving contact in the intervals between the actions. In the same manner he uses the legs, neither gripping nor releasing altogether, but preserving light contact in the intervals between the blows with the calves. The weight likewise is used in a similar manner, being quickly applied to the front, to the rear, or to a side, alternating with returns to the normal position.

If an action of the aids is prolonged the horse has opportunity to establish the corresponding resistance, but if produced by **repeated applications** the effect is very marked.

All action of the aids should diminish in intensity when obedience begins and cease entirely as soon as the desired result is secured.

Troopers must be thoroughly trained in riding with the reins in one hand.

208. The instructor, in teaching troopers to avail themseives of their legs and reins, is governed by the preceding considerations, and from the first watches vigilantly the action of the aids.

The hand should always be kept low. The most thoughtful care should be exercised in the combined application of the aids, so that they may not be opposed to each other in their action; that is, one favoring the intended movement, the other opposing it.

The instructor impresses upon the troopers that their hands must be kept still; that is, free from bobbing up and down, and pulling, and from giving and taking when there is no reason therefor.

Likewise their legs should remain in light contact with the horse's sides and the heels not be used to kick the horse constantly in a nervous manner.

Moreover, that the effects of the aids may be perfectly clear, and that there may be no contradiction between them, **there should never be simultaneous action of the direct reins demanding slowing up or halting and of the legs provoking a forward movement.** This condition is essential for preserving the composure indispensable to the horses of the troop.

242. Posting: Posting is habitually employed when the troopers have stirrups and understand their use.

It is executed as follows: The horse moving at a trot, the trooper inclines the upper part of his body forward, then supporting himself on the stirrups while maintaining the clinging of his knees he rises under the impulsion of the horse, maintains his position detached from the saddle while the succeeding impulse is produced, again sits down in the saddle, and continues in this way, avoiding alternate impulses.

At the beginning the mechanism of posting is made easier to the trooper by causing him to stroke the horse's neck or to grasp a lock of the mane with either hand, thus determining the forward inclination of the body.

Its proper execution requires that the seat be raised moderately, that contact with the saddle be resumed gently and without shock, that the full support of the stirrup be obtained while keeping the lower leg steady, that the ankle joint be supple, and that the heel be kept lower than the toe.

243. Care of horses and saddlery: The recruits will be given talks and practical illustrations in every phase of the care of horses and the care of saddlery. This in addition to their daily attention to those subjects as a matter of routine.

244. *The use of arms, mounted.*—During the period in which the instruction in the school of the trooper is held, there must be thorough instruction in the use of arms mounted. After the first few drills there should be daily instruction in some phase of this important part of the trooper's training. Progress in the more advanced steps of this instruction must necessarily depend upon the trooper's progress in horsemanship; but by making the dismounted instruction thorough and keeping it well in advance of the corresponding parts of the mounted program, many difficulties will be obviated and much time saved. Success with the pistol and saber will be dependent upon that familiarity with their use that can be gained only by daily practice extending over a considerable period. The dismounted instruction already prescribed in connection with the use of the weapons must be supplemented by thorough mounted work at all gaits, when passing obstacles, etc. The troope. must learn to control his horse thoroughly with one hand while carrying and using his weapon in the other; he must learn to handle his weapon mounted with a minimum of danger to himself, his comrades, or his horse. The principal

drill on at least one day of each week during the entire period devoted to the school of the trooper should ordinarily be devoted to the above instruction, thus supplementing and testing the results accomplished in the shorter daily drills. At this weekly drill the troopers should habitually appear fully armed and equipped, the saddles being packed as for field service.

The employment of the saber mounted is taught as prescribed in the **Saber Exercise**; the use of the pistol in firing mounted, as prescribed in the **Small-Arms Firing Manual.**

245. Manual of the Saber, Mounted: The saber suspended from the *left* side of the saddle—

1. **Draw,** 2. **SABER.** Pass the right hand over the reins and execute with it rapidly what is prescribed for drawing the saber on foot; place the pommel near the hip and resting on top of the thigh, flat of the blade against the point of the shoulder. This is the position of **carry saber, mounted.**

246. The saber suspended from the *right* side of the saddle—

1. **Draw.** Turn the head to the right without deranging the position of the body and glance toward the hilt; engage the right wrist in the saber knot; pull the hilt forward; seize the grip in the full hand, nails to the right; draw the blade 6 inches from the scabbard, and look to the front.

2. **SABER.** Draw the saber as prescribed on foot and take the position of carry saber.

247. The troopers are also exercised in drawing the saber as quickly as possible at the single command: **DRAW SABER.**

248. To **return saber:** The scabbard suspended from the *left* side of the saddle—

1. **Return.** Execute as prescribed on foot.

2. **SABER.** Execute as prescribed on foot, supporting the back of the blade against the left forearm until the point is engaged in the scabbard.

This command is given only at a halt or when marching at a walk.

249. The scabbard suspended on the right—

1. **Return.** Execute as prescribed on foot.

2. **SABER.** Carry the wrist opposite the right shoulder; lower the blade to the right of the horse's neck; let the grip turn in the hand so that the hand grasps the guard at the pommel, back of the hand up; turn the head to the right and

fix the eyes on the opening of the scabbard; raise the hand; insert the blade and push it home; disengage the wrist from the saber knot; and turn the head to the front.

When the saber is carried on the right the return saber is executed, so far as possible, at the halt.

250. Inspection saber and **present saber** are executed as when dismounted.

251. *Guard.*—Thrust the feet home in the stirrups and crouch slightly in the saddle, bending forward from the waist. Otherwise as explained dismounted.

In the charge in close order the trooper (in single rank) assumes the position indicated in par. 297, the body almost in a horizontal line over the horse's neck, the arm fully extended to the front. the saber, in the full grasp, in prolongation of the arm, guard up, finger nails to the right, point at the height of the eye. When difficult ground is encountered the trooper takes the position of **guard** while passing it.

If charging in double rank, the front-rank troopers conform to the positions indicated for single rank. Those troopers who are in the rear rank or who are directly in rear of others, take the position of **port saber.**

In the mêlée the troopers take the position of guard toward the nearest enemy, crouching slightly in the saddle and alive to all possible attacks.

MANUAL OF THE PISTOL, MOUNTED.

252. The modifications of the dismounted manual, incident to the employment of the pistol mounted are explained in the corresponding paragraphs of the **Manual of the Pistol, Dismounted** (pars. 145–156).

THE RIFLE.

(For troops armed with the Cavalry Equipment, Model of 1912.)

253. Before standing to horse the trooper atttaches his rifle to his belt by passing the muzzle up through the belt ring and engaging the snap hook of the belt ring into the trigger guard.

Being at stand to horse, upon any preparatory command, except for mounting or securing horses, unsling the rifle from the belt ring and take the position of order arms, removing the snaffle reins from the horse's neck and passing the right arm through them if necessary.

If a command to secure horses is given, link or couple first and then unsling the rifle.

To mount, proceed as without the rifle. When seated in the saddle, grasp the rifle at the bolt with the left hand, barrel to the front, place the butt of the rifle in the bucket, steadying the latter with the left foot if necessary and take the position of the trooper mounted.

To dismount: At the preparatory command, seize the rifle at the bolt with the left hand, give it a quick, forcible pull, lifting the butt from the bucket, and let the rifle hang from the belt.

(For troops armed with equipment corresponding to the McClellan saddle.)

254. At **stand to horse**, the rifle is held on the left side of the trooper in a position corresponding to **order arms** (par. 93), as modified by substituting the word **left** for **right** wherever the latter occurs.

In leading out, and on all occasions when the trooper leads his horse for short distances, the rifle is carried at the **left trail** (par. 108) unless otherwise prescribed.

255. In mounting, the rifle is inserted in the scabbard after the trooper steps back opposite the girth and before he takes the reins in his right hand (par. 191).

On dismounting, each trooper, after placing the bights of the reins on the horse's neck, and before stepping forward to take the position of stand to horse (par. 192), takes the rifle from the scabbard and assumes the **left trail**. A modification of this provision applies when the trooper dismounts for inspection. The rifle is never carried on the saddle when the trooper is dismounted, except as specially authorized at inspections, with the equipment corresponding to the McClellan saddle (par. 262).

256. *Inspection of arms and equipment, mounted.*—It is assumed that the troopers before being formally inspected mounted and under arms, will have advanced in elementary

collective instruction to a point when they can be formed and aligned as a mounted squad (par. 350). Should this not be the case, the instructor will place the troopers in line with intervals in advance of the inspection. References to the guide and to alignment will then be disregarded and the command **front** will be omitted.

The inspection is described below upon the assumption that all arms are inspected. The inspection of pistols is explained for both the mounted and dismounted execution. The necessary modification in case the inspection of any weapon be omitted is indicated in par. 266.

257. When arms are inspected mounted they are always inspected in the order: Saber, pistol. When inspected dismounted they are always inspected in the order: Rifle, pistol. Sabers are not inspected dismounted, nor are rifles inspected mounted. Pistols may be inspected either mounted or dismounted.

258. The troopers being mounted and fully armed and in line: 1. **Prepare for inspection,** 2. **MARCH,** 3. **FRONT.**

At the second command all align themselves on the guide. The inspector, having verified the alignment, takes position 3 yards to the right and front of the right trooper, facing to the left, and commands: **FRONT,** followed by: 1. **Draw,** 2. **SABER** (par. 165).

259. If it is not intended to inspect the pistols mounted, the inspector cautions **PISTOLS WILL NOT BE INSPECTED MOUNTED,** and approaches the right of the rank.

260. As the inspector approaches, the first two troopers execute the first motion of inspection saber (par. 170), the first trooper, as the inspector comes in front of him, executes the second and third motions of inspection saber; the second trooper, as the inspector comes in front of him, executes the second and third motions of inspection saber, the first trooper at this instant resuming the carry and the third trooper executing the first motion of inspection saber. The first trooper then returns saber. As the inspector comes in front of the other troopers the movements are executed successively as just explained.

261. The inspector, having completed the inspection of sabers, passes in rear from the left to the right of the rank.

for inspection as described without special indication when the inspector approaches the rank after commanding **FRONT** (par. 258). Except when rifles are slung as provided in the next sentence, each trooper executes **order arms** as soon as his rifle is returned to him. Should the troopers be armed with both rifle and pistol, each trooper slings his rifle as soon as inspected if the equipment in use so permits; otherwise the rifles are stacked (par. 115) by command after being inspected. The pistols are then inspected, after which **take arms** (par. 116) is executed before the troopers are dismissed.

PART II.—ELEMENTARY COLLECTIVE INSTRUCTION.

Section 5. Elementary collective instruction.

GENERAL PROVISIONS.

321. The elementary collective instruction of the trooper includes the instruction in the **School of the Squad** and in the mechanism of the movements prescribed in the **School of the Platoon.** This latter instruction is given as prescribed in par. 444.

Section 6. Basic principles of the drill.

322. The following provisions apply generally to the **School of the Squad and to all subsequent drill.** Previous provisions of a similar general character are to be found in pars. 43–49.

323. Leading: A commander leading his unit marches in the direction and at the gait desired. He is followed at a specified distance by the base (Def.), which conforms to his gait and direction. The commander thus controls the movements of the base, and may at any time by his indication conveyed in the most convenient way (as by his own movements, his commands, or signals) cause the base to change its direction or to increase or decrease the pace or gait or to halt, according to the object in view. Elements of the same kind as the base regulate upon the latter conforming to its gait and direction.

324. Directing leader, directing guide: A commander who desires to become temporarily free in his movements may leave his position as leader, first indicating: **DISREGARD** (*see* Signals) for the information of the leader of the base unit, who then becomes the **directing leader** (Def.). The latter then ceases to follow in the trace of the commander and temporarily conducts the march. In the absence of other indication from the leader he maintains the existing direction and gait.

When necessary the conduct of the march of a group (e. g., a platoon) having no subordinate leader may similarly be intrusted to the guide. The latter then becomes the **directing guide** (Def.).

325. Whenever a change of formation involves a break in the continuity of the leading the leader habitually moves at once to his new position, so as to resume leadership with the least practicable delay. He usually starts at the command of execution for the movement. Should he start for his new position before the command of execution he first cautions or signals: **DISREGARD** for the information of the base.

326. Change of directing unit (base): Whenever a change of formation results in a change of the base, the base of the formation from which the movement is executed continues, in the absence of specific indication to the contrary, to be the base until the new base is indicated.

In movements from line by which column is formed directly to a flank, the element of the column on the flank toward which the column is formed is the base upon which other similar elements regulate during the formation of the column as well as after the column is formed.

327. Changes of direction: Any movement may be executed either from the halt or when marching, unless otherwise prescribed. If executed from the halt the command **forward** need not be prefixed to any other preparatory command that indicates a direction of march; thus, being at a halt, 1. **Column right**, 2. **MARCH**; but, 1. **Forward trot**, 2. **MARCH.**

328. To insure certainty of prompt execution, commands (and signals) must be so given that their meaning is unmistakable. The preparatory command must be given at such an interval of time before the command of execution as will admit of the former being properly understood, and should

be followed by a distinct pause that properly varies in length with the size of the body of troops that is to execute the movement. The command of execution should be given the instant the movement is to begin.

329. All changes of direction are simply applications of the principle of leading as explained in pars. 323 and 367.

(*a*) The **turn** (par. 386) and **half turn** (par. 388) are *special* cases of the change of direction in line in that they involve a change of direction of *90°* and *45°*, respectively; *as executed by the platoon and squad*, they differ further from the general case of the change of direction in that the leader follows a *specially prescribed arc* during the turn (par. 387); in the troop and larger units, the leader in each case regulates the arc upon which he moves during the turn in accordance with the length of the front and the requirements of the special case.

(*b*) For a change of direction in any column formation, the elements of the column successively change direction *on the same ground*, the change in each successive element being made in accordance with the principles that regulate the change of direction in line (*a*). In each successive element the leader (if any) and the guide move over the *same path that is followed by the leader at the head of the column.*

330. The principles and methods laid down in the **School of the Trooper** (dismounted and mounted) are, except as may otherwise be indicated, or where clearly applicable only to individual instruction, to be followed in corresponding instruction in the **School of the Squad** and in all subsequent training. The same commands apply unless otherwise stated.

Certain modifications in the execution of some of the movements, incident to their use in collective instruction, are noted in appropriate places in the **School of the Squad.**

331. Column of twos and of troopers: Movements involving the use of column of twos or troopers, although simple in principle, are not adapted to execution as movements of precision, and the details of their execution will be regulated accordingly (pars. 393–400). Familiarity with the practical use of these formations must be insisted upon, but they will be taken in the simplest manner consistent with efficiency in their use.

332. To avoid repetition the detailed descriptions and explanations of collective movements are, as a rule, based only upon the execution of the mounted movements.

333. *Gaits for mounted movements.*—All mounted movements not specially excepted may be executed at the trot or gallop (par. 239).

For the execution of a movement at the **trot** or **gallop** the command **trot** or **gallop** precedes the command **march** unless marching at the gait desired or unless it be otherwise prescribed. When the indication for the **trot** or **gallop** is included in the command for the movement it precedes the command **march**; thus, 1. **Forward, trot**; 2. **MARCH.**

334. When the troopers of any element (Def.) move at different gaits, if the gait of such **element** be referred to, the gait of its **base** is to be understood.

335. A gait is said to be **correspondingly faster** or **correspondingly slower** than another gait when there is a difference of one degree between the two (par. 239).

336. In the rules included in pars. 333 to 337 the expression "other elements" (Def.) means in each case elements of the *same kind as the base.*

337. (*a*) In movements from the halt the base moves at the walk unless another gait be stated in the command or indicated by the leader's movements.

(*b*) **In forming line to the front from column** the other elements (par. 336) take, without command, a correspondingly faster gait than the base. If **gallop** be *commanded* at any time, it applies only to the other elements (*f*). The base (leading element) habitually preserves the gait of march (*a*). The leader controls the movements of the base according to the object in view. He may diminish its pace or gait or halt it to hasten the formation. A command to decrease the gait or to halt, given during the execution of the movement, applies only to those elements that have already completed the movement. The leader habitually so controls the base that elements in rear need not move faster than a maneuver gallop in order to execute the movement.

(*c*) **Column to the front is formed from line** on the base at the gait of march (*a*) or at the gait ordered (*e*). The other elements (par. 336) take or maintain a correspondingly

slower gait (or, if halted, remain so) until they can move at the gait of the base to take their places in the column. If an increased gait be *commanded* at any time, it is taken at first only by the leader and base or by the leader and those elements that have already moved to enter the column (*f*).

(*d*) In cases not covered by (*b*) or (*c*), if the base and other elements have equal distances to go they move at the gait of march or at that indicated in the command (e. g., 1. **Platoons right turn, trot;** 2. **MARCH**).

(*e*) In cases not covered by (*b*), (*c*), or (*d*) (e. g., assemble from foragers, par. 414), or by some special provision in the description of the corresponding movement (e. g., **echelon**, par. 702) the base maintains the gait of march (*a*) or takes that of the leader; the other elements move at a correspondingly faster or slower gait as may be necessary for the execution of the movement and on arriving at their places take the gait of the base (par. 338). If a special gait be commanded, it is taken by the base or by the other elements, in accordance with the principle stated in (*f*).

(*f*) When the commander indicates a special gait, whether in the preparatory command or during the execution of the movement, the effect is always to *hasten the completion of the movement.* This principle will assist in applying the rules in (*b*), (*c*), and (*e*).

(*g*) Changes of gait made by elements, without command, in accordance with the above rules, are, except as specially indicated in the commands, changes of one degree.

338. Any exceptions to the above rules are noted where they occur.

339. *Gaits for movements on foot.*—(*a*) The general principles of gaits for mounted movements apply to movements on foot with the modifications noted in (*b*) to (*g*), below, and such others as are to be readily inferred from the application of the principles of the **School of the Trooper, Dismounted.**

(*b*) No element moves in **double time** unless the movement be executed when marching in **double time** or **double time** be commanded (par. 47) or otherwise indicated by the leader. No trooper increases the length of the step or the cadence unless specially so prescribed.

(*c*) The leader so controls the movements of the base as to facilitate the execution of the movement in accordance with (*b*), above. This will involve halting the base whenever certain movements (e. g., those from column into line) are executed in **quick time**.

(*d*) If **double time** be included in the preparatory command for a movement, the indication is obeyed in accordance with the principles of par. 337.

(*e*) In movements from line into column, and in other similar movements, if executed at **attention**, the troopers while waiting to take their places in the column do not **halt** unless halt be commanded by a platoon (or troop) commander. They **mark time** instead if necessary for the execution of the movement.

(*f*) In applying the rules for mounted movements to movements on foot **quick time** will be understood where **walk** is referred to and **double time** where any faster gait is referred to.

(*g*) Any exceptions to the above rules are stated where they occur.

Section 7. The School of the Squad.

340. As soon as the troopers are **sufficiently** advanced in their instruction in the **School of the Trooper** they will be grouped into temporary squads for elementary collective instruction. This instruction will be conducted in accordance with the general principles indicated in par. 42; progress therein should be so regulated that no collective movement will be taken up until the trooper, by previous individual instruction, has been properly prepared for its execution.

341. Instruction in the **School of the Squad** is intended primarily to teach recruits the elementary movements upon which the entire drill is based. It may be recurred to whenever necessary in cases where troopers evidence the need of further elementary work.

342. For elementary collective instruction groups of not to exceed **six** or eight men can be used to best advantage. The actual instruction of each group should be conducted by a noncommissioned officer, but the instruction must be closely supervised by a commissioned officer (par. 37).

343. The system of drill contained in these regulations is based largely upon the actual leading of units by their respective chiefs or commanders. During the elementary instruction of recruits, both mounted and dismounted, leading will be emphasized as indicated in par. 344. Thereafter the application of leading will conform to pars. 448 to 456.

344. The first collective instruction will, therefore, be in conforming to the march of a leader, thus confirming and extending the instruction given in the **School of the Trooper** (pars. 295, 298); *and reasonable proficiency in this instruction must be secured before any attempt is made to utilize either commands or signals in the execution of collective movements*, except as prescribed in par. 363.

345. It is difficult for a leader to lead the squad properly and at the same time to supervise the march and correct the errors of individual troopers. For this reason it is desirable, especially in the earlier collective drills, that the instructor have as an assistant another noncommissioned officer or a well-instructed trooper. The instructor then leads the squad and requires his assistant (who takes the positions best adapted for the purpose in view) to supervise closely the movements of the troopers and to correct errors by means of cautions addressed *quietly by name to the individual man or men concerned.* Later the instructor similarly supervises the execution of the march while requiring his assistant to lead the squad. As the troopers advance in the instruction the instructor should give each of them such practice in leading the squad as the progress of the individual trooper concerned may appear to justify.

346. When instruction in leading (par. 367) has advanced to the point where the guide can preserve his proper distance from the leader and conform promptly and smoothly to the latter's movements, the other troopers meantime preserving their interval and alignment without undue constraint or unnecessarily abrupt changes of gait or pace, the instruction is extended progressively to include, in accordance with the methods prescribed in par. 347, the execution of the movements prescribed for the squad.

347. Throughout the instruction prescribed by par. 346 the squad will continue as before to be *led.* In teaching each

new movement the example and movements of the instructor as leader will be supplemented at first by oral commands only, then by oral commands accompanied by the corresponding arm signals for those movements for which such signals are provided (*see* Signals, pars. 988–996), then by signals alone. *The commands and signals will be given by the actual leader.* When the instructor is not actually leading (par. 345) he may either indicate to the leader the movements to be executed or else leave to him the selection of such movements.

348. After the oral commands and arm signals are thoroughly understood the instructor will practice the squad in passing from one formation to another, using oral commands for some movements, signals for some, and causing some (e. g., changes of direction) to be executed by conforming to the movements of the leader without the additional indication of either oral commands or signals.

349. The troopers must be accustomed to conforming, *without the assistance of any command or signal given to the squad as a whole*, to simple movements (e. g., movements **front into line**) initiated at the head of a column formation by a command so given as to be heard by only the leading troopers.

With reasonable practice the more essential changes of formation that are executed toward the direction of march can readily be taken by the squad by conforming, without other indication, to the movements of the troopers nearest the leader. As many movements in service must be executed under conditions of noise, dust, etc., that will render it difficult for the commands or signals of the leader to be understood except by those near him, *practice in conforming promptly and intelligently to the movements of the elements nearest the leader is important and must be given careful attention.*

The object ultimately to be sought in the instruction is the quiet, rapid, and effective handling of the squad with a *minimum of either oral commands or signals.* The squad is required to pass rapidly from one formation to another, a new movement being occasionally initiated before the execution of the one preceding it has been completed.

To Form the Squad, Mounted.

350. To form the squad in line (par. 368–*a*), the leader (instructor) designates a trooper to act as the base of the formation, indicates to such trooper the point where the right of the squad is to rest and the direction in which the line is to face, takes position at a convenient distance in front of and facing the point where the center of the squad is to rest, and commands: **LEAD INTO LINE.** The base trooper **leads out** (par. 188) and takes position as indicated; the other troopers lead out so as to approach the line *successively directly from the rear* and in single rank form on the line established by the base trooper, in order from right to left. The troopers form at stand to horse (par. 187) with intervals of 18 inches between horses.

The line having thus formed, the leader calls the roll and commands, **COUNT FOURS** (par. 84).

Where there is an incomplete four the troopers in it are cautioned as to the numbers finally assigned them (par. 368–*b*).

When but a single trooper is available for an incomplete four the four is habitually broken up and a trooper is placed as an extra file closer. This rule may, however, be modified in connection with the instruction of recruits.

The squad having counted fours, the leader causes the squad to mount (par. 358).

351. The formation in column of fours, twos, or troopers (par. 368–*b*, *c*, *d*) is similarly executed. The leader commands: **LEAD INTO COLUMN (COLUMN OF TWOS, COLUMN OF TROOPERS).** The trooper upon whom the formation is based (par. 350) becomes No. 1 of the leading four. The elements of the column form, in order from front to rear, with distances of 4 feet between successive fours, twos, or troopers. In column of fours or twos each four or two forms on its right trooper as in line.

When the formation is in column of *fours* the command **COUNT FOURS** is omitted. The leader cautions: **NOTE YOUR NUMBERS.**

352. The squad may also form in similar manner after the troopers mount. In this case the leader causes the troopers to mount individually after saddling and commands: **RIDE INTO**

LINE (COLUMN, COLUMN OF TWOS, COLUMN OF TROOPERS). The interval between the mounted troopers is 6 inches from knee to kneé.

To Form the Squad, Dismounted.

353. For the dismounted formation of the squad, in line, when not armed with the rifle, the leader designates the trooper to act as the base, indicates the latter's position, and takes his own position as described in par. 350, above. He then commands: **FALL IN.** The troopers form as in pars. 57 and 58. The leader then calls the roll and causes the squad to count fours.

If armed with the rifle, the troopers fall in with rifles at the order. As soon as the line or column is formed the leader commands: 1. **Inspection,** 2. **ARMS,** 3. **Right shoulder,** 4. **ARMS** (par. 91–2d), and calls the roll. Each man, as his name is called, answers here and executes order arms.

The formation in column of fours, twos, or troopers is conducted in accordance with the modifications indicated. The commands of the leader are: **FALL IN, IN COLUMN (COLUMN OF TWOS, COLUMN OF TROOPERS).** The distance between successive fours is 92 inches; between successive twos, 40 inches; between successive troopers, 14 inches.

To Mount and Dismount.

354. The squad being in line, at stand to horse, the habitual commands for mounting are: 1. **Prepare to mount,** 2. **MOUNT;** 3. **Form,** 4. **RANK.** At the first command the odd numbers lead out 4 yards directly to the front, and all execute the movements and take the final positions prescribed in par. 191–*a*. At the second command all the troopers complete, simultaneously, the movements of mounting as prescribed in par. 191–*b*. At the fourth command the even numbers move up into their intervals in the line. If the squad has dismounted from line and has formed rank (par. 356), the odd numbers stand fast at the command **Prepare to mount** and all mount in place.

If the squad be mounted in column of fours, the third and fourth commands are omitted. At the first command the troopers of each four open out fanwise, Nos. 1 and 2 to the right, Nos. 3 and 4 to the left. Nos. 1 and 4 open out a little more than Nos. 2 and 3, all opening only enough to permit the troopers to mount without interfering with each other. The troopers habitually straighten their horses in the column as soon as they have mounted, but this requirement may be relaxed whenever mounting in unison is not required (par. 358). The squad in column of twos is mounted by commands and methods conforming to those used for mounting from column of fours.

355. The preparatory oral command for mounting may be omitted. The squad then executes at the command **MOUNT** all the movements prescribed in par. 354 for the commands, 1. **Prepare to mount**, 2. **MOUNT**. The troopers mount promptly, but not in unison.

The preparatory *signal* for mounting, when followed *immediately* by the signal of execution, will be understood as equivalent to the oral command **MOUNT**, and will be executed accordingly.

356. The squad being in line, the habitual commands for dismounting are: 1. **Prepare to dismount**, 2. **DISMOUNT**; 3. **Form**, 4. **RANK**. At the first command the odd numbers ride 4 yards directly to the front, regulating on the right, and all the troopers execute the movements and take the final position prescribed in par. 192–*a*. At the second command the troopers execute, simultaneously, the movements prescribed in par. 192–*b*. At the fourth command the even numbers lead into their intervals in the rank. The third and fourth commands are given only in case it is desired to form rank. The squad may be dismounted and, without forming rank, execute rest or at ease (par. 359), or be inspected, mounted, or dismissed. The modifications indicated for dismounting in column of fours and column of twos correspond to those prescribed in par. 354 for mounting from the corresponding formation, except that the horses are not habitually straightened in the column after dismounting unless the dismounted squad moves forward (the troopers leading their horses).

357. The preparatory oral command for dismounting may be omitted. The squad then executes at the command **DISMOUNT** all the movements prescribed in par. 356 for the commands: 1. **Prepare to dismount**, 2. **DISMOUNT**. The troopers dismount promptly but not in unison.

The preparatory *signal* for dismounting, when followed *immediately* by the signal of execution, will be understood as equivalent to the oral command **DISMOUNT**, and will be executed accordingly.

358. Until the individual instruction of recruits has advanced to a point where they have acquired reasonable proficiency in mounting and dismounting, these movements will be executed at collective as well as at individual instruction by the commands and methods indicated in pars. 355 and 357. After such proficiency has been acquired, mounting and dismounting at close-order drills, at ceremonies, and at all occasions of a ceremonial nature will habitually be executed in unison by the commands and methods prescribed in pars. 354 and 356, respectively. The commands and methods prescribed in pars. 355 and 357, respectively, may, in the discretion of the commander, continue to be employed on all other duty.

The Rests and Route Order.

359. The mounted squad executes the **rests** and **route order** as prescribed in par. 221. After dismounting from line, **rest** or **at ease** may be given either before or after forming rank.

The dismounted squad executes the **rests** and **route order** as prescribed in pars. 60 and 61.

To Dismiss the Squad.

360. The squad, in **column of troopers**, is dismissed as prescribed for that formation in par. 222. The squad in **column of fours** is dismissed at the same command. The trooper on the right of the leading four leads out as indicated in par. 222 and is followed, in turn, by the other troopers of that four, then by the troopers of the next four, and so on successively to the rear of the column. In each four the troopers lead out

in order from right to left. The dismissal from column of twos is similarly executed. The squad being in line is dismissed by the commands and methods prescribed in par. 222 for a line with intervals, except that the troopers, in order to have their proper distance, move out successively from right to left instead of simultaneously. At the commands: 1. **By the right and left**, 2. **FALL OUT**, the movement is executed in a similar manner from both flanks of the line. After having dismounted from line the squad may be dismissed without forming rank.

Dismounted, without horses and not under arms, the command is **DISMISSED**.

Dismounted, without horses but armed with the rifle, the squad is dismissed as in par. 114.

ALIGNMENTS.

361. At the preliminary instruction (conducted without formal command) the instructor has two troopers on the right of the rank move forward a convenient distance and halt. He then aligns these two troopers carefully, with the proper interval as in line (par. 368–*a*), and causes the other troopers to note the details of the alignment. The other troopers are then required to move up one at a time and align themselves, with the correct interval, on the line thus established. The troopers move forward, in order from right to left, at successive repetitions by the instructor of the caution **NEXT**. Each trooper, when on or near the line, executes **eyes right** (par. 64), aligns himself accurately on the line established by the trooper or troopers on his right, and looks to the front as soon as he thinks himself correctly aligned. The instructor explains and corrects any errors. Similar instruction is given the troopers in aligning themselves to the left. As soon as reasonable proficiency is attained but a single trooper is moved forward, and the alignment is made in the same manner upon the single trooper established as the base.

The instruction is similarly given with the center trooper moved to the front as a base. Two troopers, one on the right, the other on the left of the base, then move forward at each repetition of the caution **NEXT**.

The instructor observes in the mounted instruction: That each trooper moves his horse promptly and halts with his horse correctly disposed; that he sits squarely on his horse without advancing either shoulder or leaning his body to the front or rear; that he dresses promptly as he arrives on the line; and that he makes proper use of the aids (pars. 200 to 208).

In the first drills the basis of the alignment is established parallel to the front of the section; afterwards in oblique directions.

362. When the troopers have acquired reasonable proficiency in aligning themselves, as above, the alignment is executed at the command **DRESS**, given by the instructor from his position as leader. The trooper designated as the guide (par. 371) is always the base trooper of the alignment and places himself accurately 3 yards in rear of the leader. All the other troopers align themselves promptly on the base trooper, continuing to look toward him until the command, **FRONT**. At this last command, given when the alignment is completed, all turn the head and eyes quickly to the front and take the position of attention (pars. 59, 198). Movements in the rank then cease. The instructor then habitually faces the squad or goes to either flank to verify the accuracy of the dressing, first cautioning the guide to remain in place.

363. The troopers and their mounts must be so trained as to enable alignment and interval to be kept with sufficient accuracy to maintain cohesion in the mounted charge and to present a creditable appearance at ceremonies and at other occasions of a formal or ceremonial character. A disproportionate amount of time and energy will not be devoted to this detail.

364. The use of dressing *by command* is ordinarily confined to elementary instruction (as preparation for the march in line) and to formations of a distinctly ceremonial character. At all other times the troopers are required habitually to align themselves on the base trooper without special command and to look to the front as soon as aligned.

Formal dressing is employed only when the squad is at a halt.

365. The caution: **DRESS**, may, if necessary, be given to the squad when marching (par. 367); but it will not be em-

ployed when it is practicable to use instead cautions addressed by name to the individual trooper or troopers who are at fault.

366. Alignments, dismounted, are executed by the same general methods as when mounted. At the command: **DRESS**, the hand is placed upon the hip to verify the interval (par. 57). Each trooper in dressing so places himself that his right arm rests lightly against the arm of the man on his right and that his eyes and shoulders are in line with those of the man on his right. The left hand is dropped to the side at the command **FRONT.**

LEADING THE SQUAD.

(*See also* pars. 322–332.)

367. The squad being in line at a halt, the instructor directs the guide (par. 371) to maintain a position at a distance of 8 yards (about one horse length) in rear of him and to follow accurately in his path, whether such path be a straight line or a curve. He explains to the other troopers that in marching they are so to regulate on the guide as to preserve as nearly as practicable their alignment and interval in the rank, individually increasing and decreasing the gait or pace (Def.) as may be necessary to do this. All are cautioned that they must learn to keep their proper positions in the rank without unnecessary rigidity without making sudden changes in gait or pace and without keeping their eyes constantly fixed on the guide. They are instructed that while riding with the head and eyes habitually directed as in par. 198 they will keep an alert lookout over the ground in front, cast frequent glances toward the leader so as to observe the latter's movements, and glance occasionally toward the guide to assure that the alignment is being correctly maintained. Having given these instructions, the leader places himself, facing to the front, 3 yards in front of the guide, commands: **FOLLOW ME**, and moves forward. The leader must be careful to march steadily, so regulating his direction and gait at first as to enable the guide to conform without difficulty.

Each trooper keeps his horse straight in the rank, maintaining his alignment with the guide and his proper interval (par. 368–*a*) from the man next him on the side of the guide. The troopers yield to pressure from the side of the guide and resist

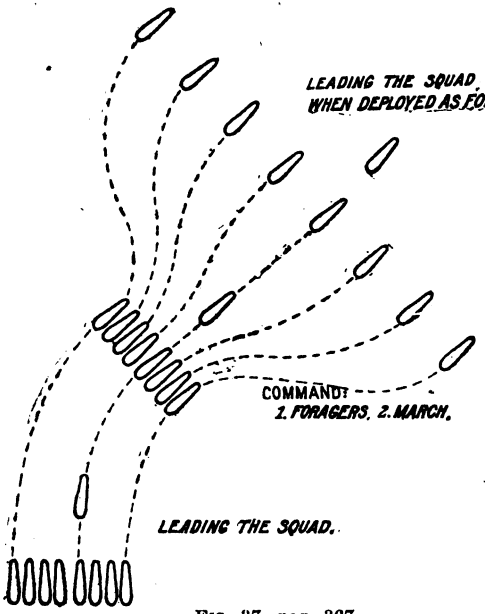


FIG. 37, par. 367.

pressure from the opposite direction. All adjustments are made gradually without crowding or confusion.

In the beginning the leader moves at a walk and makes only slight changes of direction. As the instructor completes each change of direction he indicates the *new* direction of march by

extending his arm as in signal forward (par. 990), dropping the hand to the side when the guide's horse is *straightened in the new direction.* When the troopers have become sufficiently practiced in adjusting themselves to the movements of the instructor, the latter makes the changes of direction more marked, and moves, during such changes, on the arcs of smaller circles. Finally, he requires the squad to apply the principles of leading in the manner indicated in pars. 346–349. As each movement is taken up the principles of leading that apply are explained in detail, so that all may understand clearly the identity and position of the base. The base trooper (guide) must clearly understand his duties. (Fig. 31.)

SQUAD FORMATIONS.

The formations of the squad for drill, march, or combat are as follows:

CLOSE ORDER.

368. (*a*) **Line:** The troopers are abreast of each other with intervals (Def.) of 6 inches (mounted) or 4 inches (dismounted) between troopers.

(*b*) **Column of fours:** The troopers of each four are arranged as in **line.** The fours follow successively one behind another with distances (Def.) between successive fours of 4 feet, mounted, or 92 inches, dismounted. When a four includes less than four troopers it is an **incomplete four.** Places in an incomplete four are habitually filled in the following order: No. 2, No. 3, No. 4, No. 1 (par. 374).

(*c*) **Column of twos:** The troopers of each two are arranged as in **line,** the twos following successively, one behind another, with distances between successive twos of 4 feet, mounted, or 40 inches, dismounted. If any two have but a single trooper the latter takes the position corresponding to the right trooper of the incomplete two (par. 374).

(*d*) **Column of troopers:** The troopers of each four follow successively, one behind another, with distances between consecutive troopers of 4 feet when mounted, or 14 inches when dismounted.

(*e*) **Foragers:** The troopers are abreast of each other, with intervals of 3 yards between troopers, unless some other interval be specially designated.

The dismounted formation corresponding to **foragers** is **skirmishers.** The interval between troopers in line of skirmishers is one-half pace unless some other interval be designated.

In the employment of a squad or other small detachment the designation of a greater interval than one-half pace is habitual rather than exceptional (par. 408).

In a line of **skirmishers** at one-half pace interval each man may be considered as occupying, including his interval, about 1 yard of front.

The squad may also be extended in depth as prescribed in par. 418.

ORDER IN THE SQUAD.

369. When it is said that a unit is in order in any formation it is meant that the arrangement and condition of the component elements is such that the unit is ready to execute, in the accustomed manner, any movement that is intended to be executed from the formation in question. The conditions essential to order in each formation of the squad are stated in paragraph 370. The squad, in line, for example, would not be in order if the troopers did not know their numbers, for it could then execute no movement based upon the division into fours, twos, or troopers.

370. The squad in line, column of fours, or foragers is in order when the troopers of each four are arranged, from right to left in the four, in the order of their respective numbers, and each knows his number.

The squad in column of twos is in order when the twos of each four are next to each other in the column, odd numbers on the right, and each trooper knows his number.

When the two composed of 1 and 2 is in front, the column is said to be right in front; when the two composed of 3 and 4 is in front, the column is said to be left in front.

The squad in column of troopers is in order when the troopers of each four are next to one another in the column, are ar-

ranged from front to rear in the order 1, 2, 3, 4, or 4, 3, 2, 1, and each trooper knows his number. When the order is 1, 2, 3, 4, the column is said to be right in front; when the order is 4, 3, 2, 1, left in front.

It is not necessary to order in the squad, in any of the above formations, that a particular trooper or troopers be in any designated four, nor that the fours have any special relative order from right to left or front to rear.

GUIDE OF THE SQUAD.

(*see also* **Def. Base,** and par. 326.)

371. At the original formation of the squad in **line,** the leader designates a trooper by name as **guide** of the squad. The guide of the squad in line and **foragers** is habitually a trooper at or near the center of the squad; any trooper may, however, be designated as guide.

372. A trooper having once been designated as guide of the squad in line continues to act as such, in **line** or **foragers,** until another trooper be specifically designated as guide. With a view, however, to avoiding possible doubt as to the identity of the guide, the leader at each change of formation that terminates in line or foragers habitually indicates the guide of the new formation.

373. To designate the guide the leader cautions: (So-and-so) **THE GUIDE,** and habitually places himself 3 yards in front of the trooper named if not already in that position. A trooper designated as guide will, at the time of the designation, raise his hand or weapon to a position vertically above his head, hold the position for a moment, and then lower his arm to his side without further command. The leader or his assistant may at any time cause the guide thus to indicate his identity to the other troopers by cautioning: **GUIDE.** The leader may change the guide of the squad in line at any time by indicating **disregard** (par. 990), placing himself in front of another trooper and designating the latter as guide in the manner prescribed above.

374. The base of the squad in each of the column formations is the leading element (four, two, or trooper, respectively).

The guide of the leading (base) element is also the guide of the squad. In each four No. 2 is the guide; in each two the right trooper (No. 1 or No. 3). In an incomplete four or two the position of the guide is always filled. The guide of each element in rear of the base follows in the trace of the guide of the base (leading) element at the prescribed distance.

375. Whenever in the execution of any movement a four or two moves to its new position by an oblique (or movement approximating an oblique) the trooper on the side toward which the oblique is made acts as guide of the element during the oblique. At all other times the guide in a four or two is as indicated in par. 374 unless specially otherwise stated.

376. The guide of the squad habitually follows the leader at 3 yards distance, but the leader may designate a greater distance, in which case the guide marches accordingly.

377. When a guide temporarily is directing guide (par. 324), it is necessary that he continue accurately in the direction of march or in the direction indicated for him by the leader. This is an application of the marching upon fixed points prescribed in the School of the Trooper (par. 232).

Movements Executed by the Squad.

378. Any formation (close or extended order) prescribed for the squad may be taken directly from any other *close-order* formation. Being in extended order the squad, to pass directly to close order, must execute the assembly or rally.

379. Subject to such modifications as are indicated under the respective paragraphs describing the movements, the dismounted squad executes, at the same commands as prescribed for the mounted squad, such movements as are not obviously inapplicable to dismounted duty. The execution of the dismounted movements will, where differences in the mounted and dismounted methods necessarily exist, be in accord with the principles explained in the School of the Trooper, Dismounted, corresponding changes in the details of execution being made.

380. The general principles regulating gait and pace for both mounted and dismounted movements are stated in pars. 333–339. Modifications of those principles, if any, are stated under the corresponding paragraphs in the School of the Squad.

COMMANDS AND CORRESPONDING ARM SIGNALS.

381. Following is a list of the principal commands employed in the **School of the Squad**, together with the corresponding arm signals, if any. The list includes only a few of the commands also found in the **School of the Trooper** (mounted or dismounted.) The commands are arranged alphabetically for convenient reference. The description of the signals will be found in par. 990.

COMMANDS.	PARS.	ARM SIGNALS.
1. Assemble, 2. MARCH	414	**Assemble.***
1. Backward, 2. MARCH	384	None.
1. By the right (left) flank, 2. MARCH	411	**March to the flank.***
CIRCLE HORSES	428	None.
1. Column, 2. MARCH	399	**Column.***
1. Column half right (left), 2. MARCH	396	**Change direction.*** (*See* par. 386.)
1. Column of twos, 2. MARCH	399	**Column—twos.†**
1. Column right (left), 2. MARCH	396	**Change direction.*** (*See* par. 386.)
COUPLE HEAD AND TAIL	427	None.
DISMOUNT	357	**Prepare to dismount.*** (Given as explained in par. 357.)
1. Foragers, 2. MARCH	408, 410	**Foragers.***
1. Forward, 2. MARCH	382, 412	**Forward.***
1. Fours right (left), 2. MARCH	391, 400	**March to the flank.***

* Signals marked thus are preparatory signals; the signal of execution in each case is made as prescribed in par. 990.

† In signals marked thus (combination signals) the preparatory signal consists of more than one element; the signal of execution follows the last element of the preparatory signal.

COMMANDS.	PARS.	ARM SIGNALS.
1. Fours right (left) about, 2. MARCH...	401, 402	To the rear* (left about only).
1. Fours right (left), column left (right); 2. MARCH.	403–c	None.
1. Fours (twos or troopers) at so many yards distance, 2. MARCH.	413	None.
1. Gallop, 2. MARCH.....	382	From the trot only: Increase the gait.*a
HORSES BACK.....	432	None.
INCLINE TO THE RIGHT.....	390, 396	None.
1. Nos. 1, 2, and 4; 2. FORM ON FOOT..	436	None.
MOUNT.....	355	Prepare to mount. (Given as explained in par. 355.)
1. Prepare to dismount, 2. DISMOUNT..	356, 358	Prepare to dismount.*
1. Prepare to mount, 2. MOUNT.....	354, 358	Prepare to mount.*
RALLY.....	416	Rally (no preparatory signal). Oral command habitually accompanies signal.
1. Right (left) by fours, 2. MARCH.....	403–a	None.
1. Right (left) by troopers, 2. MARCH.....	393–b, 403–b	None.
1. Right (left) by twos, 2. MARCH.....	393–a, 403–b	None.
1. Right (left) forward, fours right (left); 2. MARCH.	403–d	None.

* Signals marked thus are preparatory signals; the signal of execution in each case is made as prescribed in par. 990.

a See pars. 239, 333. When a gait signal is added to the preparatory command the resulting signal is given as a combination signal.

COMMANDS.	PARS.	ARM SIGNALS.
1. **Right (left) half turn,** 2. **MARCH;** 3. **Forward,** 4. **MARCH;** or 3. Squad, 4. **HALT.**	388	**Change direction.*** The signal of execution for the change of direction is followed by **forward** or **halt*** (par. 386).
1. **Right (left) front into foragers** (or **skirmishers**), 2. **MARCH.**	409	None.
1. **Right (left) front into line,** 2. **MARCH** ...	397	None.
1. **Right (left) turn,** 2. **MARCH;** 3. **Forward,** 4. **MARCH;** or 3. Squad, 4. **HALT.**	386	Change direction.* The signal of execution for the change of direction is followed by **forward*** or **halt.***
1. **Skirmishers,** 2. **MARCH**.....	408 410	Skirmishers.*
1. **Squad,** 2. **HALT**.....	383	Halt.*
TO FIGHT ON FOOT. When given orally the indication **ACTION RIGHT (LEFT, FRONT)** is habitually added to the above command. **FIRE AT WILL** may also immediately follow the above command (par. 430).	430	**To fight on foot.** (No preparatory signal.)
1. **To the rear,** 2. **MARCH**.....	412	**To the rear.***
1. **Troopers right (left) about,** 2. **MARCH.** (Given only from column of troopers.)	402	To the rear* (left about only).
1. **Troopers right (left) oblique,** 2. **MARCH.**	385	None.

* Signals marked thus are preparatory signals; the signal of execution in each case is made as prescribed in par. 990.

COMMANDS.	PARS.	ARM SIGNALS.
1. Trot, 2. **MARCH**.....	239	From the walk: Increase the gait.*a From the gallop: Decrease the gait.*a
1. **Twos right** (left), 2. **MARCH.** (Given only from column of twos and as an exceptional movement.)	400	March to the flank.*
1. Twos right (left) about, 2. **MARCH.** (Given only from column of twos.)	402	To the rear* (left about only).
1. **Walk**, 2. **MARCH**.....	239	From the trot only: Decrease the gait.*a

* Signals marked thus are preparatory signals; the signal of execution in each case is made as prescribed in par. 990.

a See pars. 239, 333. When a gait signal is added to the preparatory command, the resulting signal is given as a combination signal.

DETAILED DESCRIPTION OF MOVEMENTS, CLOSE ORDER.

382. Being in line at a halt, to march to the front: 1. Forward, 2. MARCH.

The leader moves forward, followed at a distance of 3 yards by the guide (par. 371). The other troopers conform to the march of the guide as explained in par. 367.

Being at a halt, to move forward at a trot or gallop, the commands are (par. 333): **1. Forward, trot,** or **1. Forward, gallop; 2. MARCH.**

Increases of gait are habitually made progressively (par. 239).

The march of the squad in line, dismounted, is conducted in accordance with the provisions of pars. 68–74.

383. Marching in line, to halt: 1. Squad, 2. HALT.

All halt at the second command.

The troopers, if not already aligned, align themselves without command on the guide as they halt (par. 364). Movement in the rank then ceases.

If marching at the trot or gallop, the gait is ordinarily decreased progressively, the halt being executed from the walk (par. 239).

384. Being in line at a halt, to march backward: 1. Backward, 2. MARCH.

All the troopers rein back (par. 280), regulating on the guide, who maintains his distance from the leader. The execution of the march backward as a *collective movement* is habitually limited to cases where the movement may be necessary; it is then executed for short distances only. It is not executed at an increased gait.

385. Being in line, to oblique and resume the original direction: 1. Troopers right (left) oblique, 2. MARCH.

Executed by each trooper as in par. 230. During the oblique march the right knee of each trooper should be just

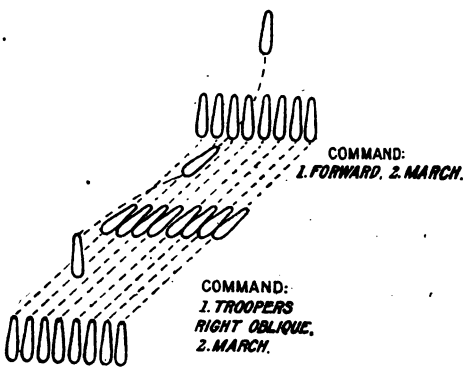


FIG. 38, par. 385.

in rear of the left knee of the trooper on his right; the trooper on the flank toward which the oblique is made acts temporarily without special indication as directing guide (Def.) of the squad. The line during the oblique march should be

parallel to its original direction. The leader does not take position in front of the flank trooper during the oblique.

Halting the mounted squad while at the oblique should be avoided. If the squad has to be halted thus, the troopers upon halting turn their horses to the original front in so far as practicable.

To resume the original direction by similar means, the commands are: 1. **Forward**, 2. **MARCH.**

In executing the oblique by trooper, dismounted, each trooper preserves his relative position, keeping his shoulders parallel to those of the directing guide and so regulating his step that the rank may remain parallel to its original front. In resuming the original direction, the troopers half face to the left in marching, then move straight to the front. If at half step or mark time while obliquing, the oblique march is resumed by the commands: 1. **Oblique**, 2. **MARCH.** Should the halt be commanded while the squad is obliquing, the troopers halt faced to the front (fig. 32).

386. Being in line, to turn to the right or left: 1. Right (left) turn, 2. MARCH; 3. Forward, 4. MARCH; or 3. Squad, 4. HALT.

The principle of the movement is explained in par. 329–a.

The form of the third and fourth commands is determined by whether the turn is to terminate with the advance in line or with the halt.

In the turn the squad is led by its leader (par. 367) through a change of direction of 90°. The leader (and, therefore, the guide) are restricted not only to this particular change of direction but also to a particular arc or path during the turn (par. 387).

There is no special arm signal for the *turn* as such; but, as the turn is a change of direction, the signal for the latter movement is applicable. The signal for the change of direction does not in itself indicate the degree of the turn, but the leader's subsequent signal forward or halt indicates when the change of direction is to cease.

In the turn, as in any case of the march in line, the leader, subject to the restrictions just indicated, regulates the direction and gait of march, the guide conforms to the movements of the leader, and all the other troopers regulate their align-

393. Being in column of fours, to form column of twos or troopers:

(*a*) To form column of twos: **1. Right (left) by twos, 2. MARCH.**

The right two of the leading four is the base. The other twos enter the column successively, the right two of each four being followed immediately by the left two of the same four, the left two obliquing to enter the column (par. 331). All distances are 4 feet (par. 368). Gaits are regulated as in movements from line into column (par. 337–*a*, *c*).

(*b*) **Column of troopers** is formed on the same principles at the commands: **1. Right (left) by trooper, 2. MARCH.** The right trooper of the leading four is the base.

Column of troopers from column of twos is formed by the same commands as from column of fours and in accordance with the same principles.

The movements described in this paragraph are among those referred to in par. 468–b.

394. In executing any movement by which a column of twos or troopers is formed, a four composed of less than three troopers (par. 368–*b*) acts temporarily as a two—on the right of the four if the column of twos is formed **right in front** (par. 370); on the left of the four if the column of twos is formed **left in front.** When the column of fours is re-formed the troopers take their proper places in column as indicated in par. 368–*b*.

395. The squad in column of **fours, twos,** or **troopers** is marched to the front, halted, marched backward, marched in an oblique direction, and marched again to the original front by the same commands as the squad in line, each element of the column conforming to the principles indicated for the squad in line (pars. 329, 374).

396. Being in column of fours, twos, or troopers, to change direction.

The movement is executed as explained in par. 329, the fours (twos, troopers) successively changing on the same ground, the guide of each element moving in the trace of the leader.

In changing direction in column of fours, *mounted*, the guide of each rear four slightly diminishes the *pace* when 4

feet from the turning point, correspondingly increasing the pace during the actual change of direction so as to have the proper distance of 4 feet from the four next in front when the turn is completed. This provision does not apply to the corresponding dismounted movement, nor to the column of twos, or troopers.

To indicate, for any column, a change of direction of 90° or 45°, the leader may command, respectively: 1. **Column right (left)**, or 1. **Column half right (left)**; 2. **MARCH.**

The leader may indicate a slight change of direction by the caution: **INCLINE TO THE RIGHT.**

The dismounted execution of the change of direction conforms in each element of the column to the modifications noted in pars. 386 and 387 for the execution of the turn dismounted. The leader regulates the length of his own step accordingly during his actual change of direction, and the guide of each successive element does the same when he reaches the turning point.

397. Being in column of fours, twos, or troopers, to form line to the front: 1. Right (left) front into line, 2. MARCH.

The leading element (four, two, or trooper) of the column is the base of the movement and moves forward.

Each element in rear of the base leaves the column by a movement approximating a right oblique and proceeds (par. 375) to a place abreast of the leading element, the elements taking successively, from left to right in the new line, positions in the same order as that in which they previously appeared from head to rear in the column.

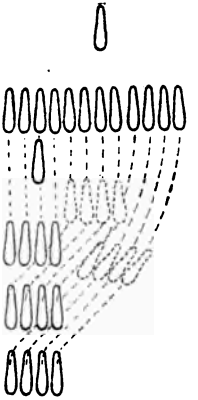


FIG. 40, par. 397.

The guide of the leading element, when the movement begins, acts as directing guide (Def.) of the squad from the moment the leader starts to his new position until he indicates the guide of the new line (pars. 326, 373) when all regulate on the latter guide.

Gaits are regulated as in pars. 337–*a*, *b*. (Fig. 34.)

This is one of the movements referred to in par. 468–b.

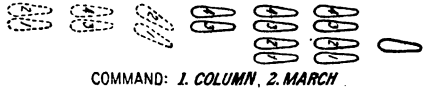
In the dismounted execution of the movement at quick time the leader commands: 1. **Squad**, 2. **HALT**, as soon as the leading element has advanced to the point where it is desired that the line shall form (par. 339–*a*, *b*, *c*). Only the leading (base) element halts at the command, each rear element halting as it arrives on the line (par. 337–*f*). If executed while marching in double time, the leader similarly commands: 1. **Quick time**, 2. **MARCH**, the reduced gait being taken successively by the elements as they reach their positions (par. 337–*f*). If marching in quick time, and **double time** be included in the command, the command for the increased gait applies only to the rear elements (par. 337–*f*).

398. To prevent the inversion of twos or troopers in their respective fours the squad in **column of twos or column of troopers** should form line to the left front when the squad is right in front (par. 370), and vice versa.

399. Being in column of twos or troopers, to form column of fours: 1. **Column**, 2. **MARCH.** (*See* Def. **Column.**)

The leading element is the base and follows the leader.

If in column of twos the rear two of the leading four obliques at a correspondingly faster gait (par. 335) and takes its proper place abreast of, and to the *right or left* of, the leading two of that four, so that the troopers of the four shall appear from right to left, in the order of their respective numbers. All the other twos take up a correspondingly faster gait than the leading two, and the fours form successively from head to rear in the column in the manner indicated above (par. 331). The leading two of each four, other than the leading four, takes the gait of the head of the column (or halts) when at 4 feet from the corresponding two of the four next in front. In each four the rear two begins to oblique as the leading two of that four approaches the position where it decreases the gait (or halts).



COMMAND: *1. COLUMN, 2. MARCH*

FIG. 41, par. 399.

The leader takes position in front of the guide of the column (No. 2).

Gaits are further regulated as in movements from column into line (par. 337–*a*, *b*).

Column of fours from column of troopers is formed by the same commands and in accordance with the same principles.

Column of twos from column of troopers is formed in a similar manner at the commands: 1. **Column of twos,** 2. **MARCH.** The column of twos will be right in front or left in front (par. 370), according as the column of troopers was right in front or left in front prior to the movement.

In the dismounted execution of the above movements in **quick time** the leader habitually commands: 1. **Squad,** 2. **HALT,** im-

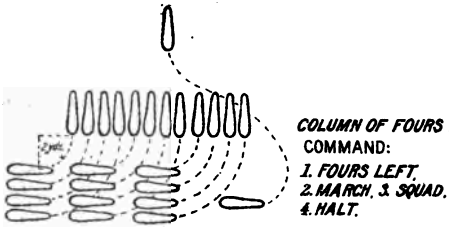


FIG. 42, par. 400.

mediately following the command of execution (par. 339–*b*, *c*). Only the leading element halts (par. 339–*f*), each of the rear elements halting when it reaches its prescribed position in the column. If executed in **double time** the leader similarly follows the command of execution by the command for **quick time** (par. 339–*b*, *c*), which is successively taken by the elements, as above. If marching in **quick time,** and **double time** be commanded, only the rear elements take the increased gait, each taking **quick time** on arriving in its place. (Fig. 41.)

400. Being in column of fours, twos, or troopers, to form line to a flank: 1. **Fours right** (left), 2. **MARCH.**

Each four turns to the right (par. 389). Each rear four regulates on the leading four until the fours unite in line (par.

326), when, unless the leader halts the squad, all take up the march in the new direction *without further command*, regulating on the new guide (pars. 325, 372). If the squad is to form line without advancing in the new direction, the leader gives the preparatory indication for the halt immediately following the second command, so as to add the command halt as the four unite in line.

In an emergency a similar movement may be executed from **columns of twos** at the commands: 1. **Twos right (left)**, 2. **MARCH.** Loss of order may result. In the absence of other indication, intervals are closed toward the guide (par. 372). A similar movement executed from column of troopers results in a line of foragers, which may be assembled or rallied to form line (pars. 414, 416).

Gaits are regulated as in par. 337–*d*. (Fig. 36.)

401. Being in line, to face or march the line to the rear: 1. Fours right (left) about, 2. MARCH.

When the movement is executed by **signal** the elements of the column always turn to the *left* about. The oral command **fours right about** is not accompanied by an arm signal.

Each four turns 180 degrees in the direction indicated (par. 389). The leader, passing around a flank of the squad, promptly takes position in front of the guide so as to lead the squad in the new direction (pars. 325, 372).

To face to the rear, the squad is halted as the fours unite in line.

The modifications incident to the execution of the dismounted movement are indicated in par. 391.

Gaits are regulated as in par. 337–*d*.

A dismounted squad may also be marched a short distance to the rear by the *oral* command and methods indicated in par. 82.

402. Being in column of fours, twos, or troopers, to face or march the column to the rear: 1. Fours (twos, troopers), right (left) about, 2. MARCH.

The provision in the preceding paragraph regarding the execution of the movement by signal applies equally to this paragraph. Each four (two, trooper) turns 180 degrees in the direction indicated (par. 389). The leader promptly takes

position in front of the guide of the column (par. 325). (Fig. 37.)

403. Being in line to form column of fours, twos, or troopers to the front: 1. Right (left) by fours (twos, troopers), 2. MARCH.

The formation is a successive one. The right element (four, two, or trooper, according to the command) is the base; it moves forward and follows the leader, becoming the leading element of the column.

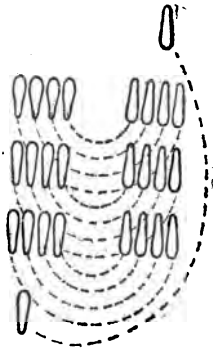


FIG. 43, par. 402.

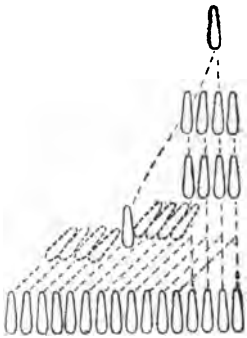


FIG. 44, par. 403 (*a*).

(*a*) In forming column of fours each four to the left of the base successively obliques to the right (par. 385) at the gait of the base as soon as it has sufficient space, and resumes the direct march so as to enter the column at 4 feet distance. To avoid losing distance the oblique must be begun in each four when the heads of its horses are opposite the croups of the horses of the four on its right. Gaits are regulated as in pars. 387–*a*, *c*. (Fig. 44.)

(*b*) In forming column of twos or troopers only the elements of the right four move in the manner indicated above. Each of the other elements successively turns to the right (par. 389) and then, after advancing in the new direction, turns to the

left so as to enter the column at 4 feet distance (par. 331). Gaits are regulated as in pars. 337–*a*, *c*. The movements described in (*a*) and (*b*) are among those referred to in par. 468–*b*. (Fig. 45.)

(*c*) **Right (left) by fours** is ordinarily unsuited to execution in groups of any size. Should it be necessary to break to the front from the *flank* of such a unit, column of fours to the front may be formed by executing **fours right (left)** and then changing the direction of march of the head of the column. The oral commands: 1. **Fours right (left), column left (right),**

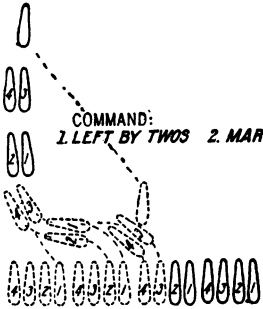


FIG. 45, par. 403 (*b*).

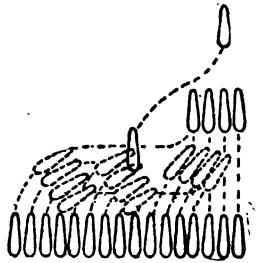


FIG. 46, par. 403 (*d*).

2. **MARCH**, and 1. **Fours right (left), column half left (right),** 2. **MARCH**, are authorized for this purpose. Gaits are regulated as in par. 337–*d*.

(*d*) For cases that are *not suitably met by* (*a*) *or* (*c*) *of this paragraph* the commands: 1. **Right (left) forward, fours right (left),** 2. **MARCH**, are authorized. The right four is the base and moves forward following the leader, who promptly takes position in front of the guide of the column (pars. 325, 374). The second four from the right starts to move as in **fours right** (par. 391), its guide decreasing the pace until the right four has partly cleared the second four, when the latter four, by a movement approximating an oblique, enters the column so as to follow in the trace of the leading (original right) four at 4 feet distance. The other fours execute **fours**

right (each slightly decreasing the pace during the turn), and then column left, so as to follow the second four at the proper distance. The fours move simultaneously and, except as noted above, all at the same gait (par. 337–*d*).

In the execution of the movement dismounted the right four moves forward; the remainder of the squad executes fours right, column left, and follows the right (leading) four at 92 inches distance. The right four takes four short steps just after it, clears the four next on its left, then resumes the full step. (Fig. 46.)

EXTENDED ORDER.

404. In extended-order drills the troopers habitually march at ease, but keep on the alert so as promptly to conform to the indications of the leader and the movements of the guide.

The rifles of dismounted troopers in extended order are carried as in par. 61.

405. Foragers may be formed when the squad is in any authorized formation (par. 468) or in disorder, when it is moving at any gait or is halted. The extension is effected toward the direction of march. When possible the deployment should be made upon ground protected from hostile view and fire. Whatever the method employed for the extension, the leader controls the movements of the base (par. 323). The other troopers, moving at a *gallop*, form foragers in accordance with the methods indicated.

The squad, deployed as foragers, is marched to the front and halted, obliques, resumes the original direction, executes changes in gait and changes of direction, by the commands and methods prescribed for the squad in line.

406. The appropriate substitution of skirmishers for foragers, is made in the commands for movements in extended order, dismounted (par. 368–*e*). The skirmishers move at a run to their positions on the line of foragers.

407. A greater or less interval than 3 yards between foragers may be ordered, the words at (so many) yards being added to the preparatory command so as immediately to follow the word foragers or skirmishers.

408. Being in line, to form foragers: 1. Foragers, 2. MARCH.

The guide continues to be the base and advances (par. 405) at the gait of march unless the leader indicates otherwise

(pars. 337–*f*, 405). The troopers to the right of the guide move at a gallop obliquely to the right front; those to the left obliquely to the left front. The troopers take position abreast of the base in the same order as in line and at intervals of 3 yards measured from the side of the base. Should the right trooper be the guide, all oblique to the left; should the left trooper be the guide, all oblique to the right.

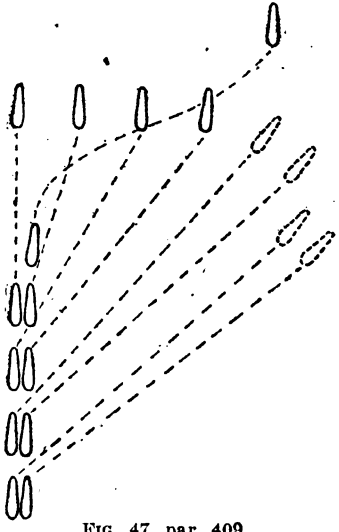


FIG. 47, par. 409.

In the execution of the corresponding dismounted movement (commands: 1. **Skirmishers**, 2. **MARCH**—par. 406) the troopers move to their places at a run, taking intervals of one-half pace, unless some other interval be indicated (pars. 368–*e*, 407.) (Fig. 37.)

409. Being in column of fours, twos, or troopers, to form foragers: 1. **Right (left) front into foragers**, 2. **MARCH.**

The *left trooper* of the leading element of the column as the base of the deployment advances at the gait of march (par. 337–*a*) unless the leader indicates otherwise (pars. 337–*f*, 405), the other troopers of the leading element deploying as indicated in par. 408. The remaining troopers move obliquely to the right front at a gallop and extend the line in similar manner, the order of the successive elements being the same, from left to right in line, as it formerly was from head to rear in the column.

The possibility of the inversion of troopers in the fours as a result of forming foragers from column of *twos* or *troopers* should be kept in mind. No such inversion can occur in movements executed from column of fours. The movement described in this paragraph is one of those referred to in par. 468–*b*. (Fig. 41.)

410. Being in disorder, to form foragers:

Foragers may be formed from any condition of dispersion or disorder by methods similar to those indicated in pars. 408 and 409. At the command: 1. **Foragers,** 2. **MARCH,** the troopers nearest the leader ride toward him at a gallop. The leader indicates the guide (par. 373), who follows the leader; the other troopers, moving at a gallop, take position, with the proper interval, on the right and left of the guide, without regard to order.

Line of foragers from a condition of disorder may also be formed by first rallying the squad (par. 416) and then forming foragers.

Dismounted, skirmishers may similarly be formed.

411. Being deployed as foragers, to march to a flank: 1. By the right (left) flank, 2. MARCH.

Each trooper turns 90° to the right and marches in the new direction (par. 389). A column of troopers at 4 feet distance results. The line of foragers may be resumed by again marching to the flank by the use of corresponding commands and methods.

Gaits are regulated as in par. 337–*d*.

Dismounted, each trooper moves as in par. 81. If at a halt, the movement of the foragers by the flank is executed by the same commands as when marching.

412. Being deployed as foragers, to march to the rear: 1. To the rear, 2. MARCH.

Each trooper executes an about to the *left* (pars. 389, 486). To march again to the front the commands: 1. **Forward,** 2. **MARCH,** are given. Each trooper executes another about to the *left.* If a line of foragers be halted while marching to the rear, each trooper turns to the left about and halts, faced to the front (par. 474).

Gaits are regulated as in par. 337–*d*.

Dismounted, each trooper executes **to the rear** (par. 82). If at a halt, the movement of the foragers to the rear is executed by the same commands as when marching.

413. The squad may be extended in depth as well as in front. The commands are: 1. **Fours (twos, or troopers) at so many**

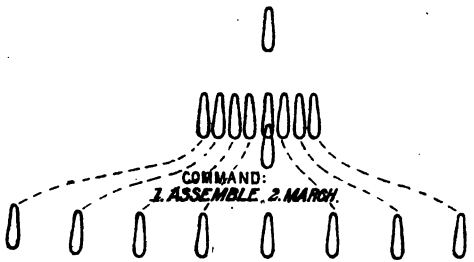


FIG. 48, par. 414.

yards distance, 2. **MARCH.** This movement may be used to cross a fire-swept area when such a course is necessary. The leader indicates the point where the squad is to be reassembled. The fours (twos or troopers) move out successively from head to rear in column or right to left in line. Each element may extend laterally on its guide. The gait is the gallop.

414. Being deployed as foragers and in order (par. 470) to assemble: 1. **Assemble,** 2. **MARCH.** The guide advances and follows the leader. The other troopers close in on the guide and form in line upon him in the same relative order in which they were at the moment the assembly was commanded. The leader halts the guide at any time if it is desired to assemble without gaining further ground in the direction of march.

The leader, by moving in any desired direction, may regulate the direction toward which the assembly is executed. Gaits are regulated as in par. 337–*e*, the elements other than the base taking a correspondingly faster gait. The assembly in each unit is explained for that unit (par. 468–*b*).

The leader may, by prior designation of any trooper (e. g., a flank trooper) as guide (par. 373), cause the assembly to be executed on that trooper by the commands and methods just indicated.

The troopers always start to assemble in line, but when an assembly in column is desired it may virtually be accomplished by the leader's designation of a flank trooper as the guide before ordering the assembly and cautioning: **COLUMN** as soon as the assembly begins. The fours, as they successively assemble toward the base, then take their places in column of fours instead of in line; the leader takes post in front of No. 2 (par. 325).

If there be not space to advance in column of fours, the assembly in column of twos or troopers may be accomplished by corresponding commands and methods.

The *squad* executes assemble only when deployed as foragers and in order. Under other conditions the rally (par. 416), followed by count fours, more easily accomplishes the purposes of the assembly (Def.).

In executing the assembly dismounted the troopers close in on the guide in double time *without special command* if the guide and leader continue to advance (par. 339–*g*); otherwise they close in at quick time unless double time be commanded (par. 339–*b*). (Fig. 42.)

415. If to the rear (par. 412) be executed by the squad, a temporary loss of order occurs. If it be desired to pass to close order without resuming the march to the front and assembling (par. 414), the squad may rally (par. 416) and count fours.

416. Being in any formation, or not formed, or in disorder, to rally: RALLY. *When the rally is ordered the signal is habitually accompanied by the oral command, both the signal and the oral command being repeated until understood and obeyed. The signal is obeyed at once, there being no preparatory command for this movement.*

The leader takes position at any point or moves in any desired direction, and at any gait that will permit the movement to be executed. The troopers ride toward the leader at an extended gallop and, in the absence of other indication, form in rear of the leader in line. The leader promptly designates the guide (pars. 371, 373), who follows the leader. The other troopers form, as they come up, on the right and left of the guide extending the line. The leader may caution: **COLUMN**, as the leading troopers approach. The troopers then form in **column of fours** instead of in **line.** The leading element forms first; the other troopers, as they arrive, succes-

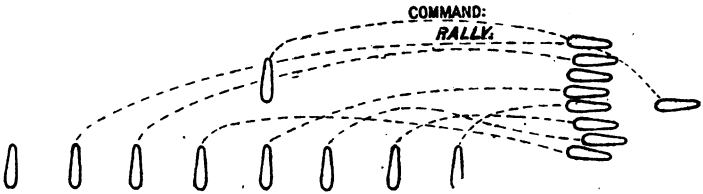


FIG. 49, par. 416.

sively form fours, extending the column to the rear. The leader designates the guide (pars. 373, 374) and cautions: **NOTE YOUR NUMBERS.** The rally in column is exceptional and is intended for use only on occasions when a narrow road or other circumstances of the terrain prevent the rally in line.

Should the route along which the leader is moving when the rally is ordered be too narrow to permit the formation of column of fours, the leader may caution: **COLUMN OF TWOS (COLUMN OF TROOPERS)** as the leading troopers approach. The movement is executed as explained for the rally in column of fours. Fours should be counted at once. The rally in columns of twos or troopers is to be regarded as very exceptional.

The squad being rallied in line, though ordinarily not in order until fours are counted (par. 470), is available at once

to charge or to execute any movement that does not involve a knowledge of their respective numbers on the part of the individual troopers. Unless the charge is to be executed at once, fours should be counted without delay after rallying, so that the squad may be in order and ready to execute any movements whatever that conditions may demand.

The rally, dismounted, is always executed at a run. (Fig. 49.)

The Mounted Attack.

417. The mounted attack is made with the pistol or saber in accordance with the principles indicated in pars. 562–565. The typical saber charge is executed in line. Under some circumstances, as in the attack of a dispersed enemy, etc., a saber charge may be made by troopers deployed as foragers. The pistol attack is usually made in foragers. In exceptional circumstances (as in breaking out from an ambush, attacking in a narrow road, etc.) it may be made in line or in column of fours, twos, or troopers.

418. Cohesion in the line and vigor in the shock are essential to the success of the *saber charge*. High speed is necessary for the desired shock; and in the saber charge, as executed in combat, the horses are, at the culmination of the charge, habitually "turned loose" and urged to the highest speed. This, except with men and horses that are highly trained, necessarily involves *loss of control* over the horse on the part of the trooper. The saber charge, executed with poorly trained horsemen, especially if on imperfectly trained or excitable horses, is apt to be futile as regards the instruction of the trooper and to result in more or less permanent loss of control over the horses. *Control of the mount* by the trooper is essential during the execution of the *pistol attack* (ordinarily made in line of foragers), and is, of course, necessary during march and maneuver. For these reasons it is considered advisable that the first instruction of the recruit in the actual saber charge be deferred until after platoon instruction and that it be given then only after the troop commander is satisfied that the recruit's progress in horsemanship and in the use of his weapon has advanced to a point when the exercise will be of value.

419. The work in the squad, with a view to *preparing the recruit for the mounted attack with the saber and pistol*, will therefore be limited to those exercises in which the horse is *controlled*. It should consist, in substance, of an extension to collective work of the individual instruction described in par. 297, and should include occasional practice in advancing as rapidly as can be done while maintaining a close formation and control of the mount. The increase in speed should be made quietly and progressively, be continued but a short distance and *invariably be terminated by the quiet resuming of a slow gait*. As the recruit gets more skill and confidence the exercise will be conducted with sabers drawn, the troopers taking the charging position (par. 251) when the instructor does so and returning to the *carry* with him. Similar exercises will be conducted with the pistol, with especial attention to directing the horses through lines of silhouette targets and to drawing, returning, and manipulating the pistol. The exercises with the pistol will usually be conducted in foragers and may be extended to include the actual execution of the pistol attack as described in the **School of the Platoon.**

In campaign any small group executes the mounted attack as explained for the platoon.

420. In combat of every kind skill on the part of the individual trooper in the use of the weapon or weapons employed is essential. So important is this part of the training that where time for the training of the troopers is limited all but the most essential portions of close-order drill should be deferred or omitted in order that the training of the trooper in the use of his weapons may be thorough and efficient.

Section 8. Tent pitching.

TO PITCH ALL TYPES OF ARMY TENTS, EXCEPT SHELTER AND CONICAL WALL TENTS.

To pitch all types of Army tents, except shelter and conical wall tents: Mark line of tents by driving a wall pin on the spot to be occupied by the right (or left) corner of each tent. For pyramidal tents the interval between adjacent pins should be about 30 feet, which will give a passage of 2 feet

between tents. Spread tripod on the ground where the center of tent is to be, if tripod is used. Spread the tent on the ground to be occupied, door to the front, and place the right (or left) front wall loop over the pin. The door (or doors, if more than one) being fastened and held together at the bottom, the left (or right) corner wall loop is carried to the left (or right) as far as it will go and a wall pin driven through it, the pin being placed in line with the right (or left) corner pins already driven. At the same time the rear corner wall loops are pulled to the rear and outward so that the rear wall of the tent is stretched to complete the rectangle. Wall pins are then driven through these loops. Each corner pin should be directly in rear of the corresponding front corner pin, making a rectangle. Unless the canvas be wet, a small amount of slack should be allowed before the corner pins are driven. According to the size of the tent, one or two men, crawling under the tent if necessary, fit each pole or ridge or upright into the ring or ridge-pole holes, and such accessories as hood, fly, and brace ropes are adjusted. If a tripod be used an additional man will go under the tent to adjust it. The tent, steadied by the remaining men, one at each corner guy rope, will then be raised. If the tent is a ward or storage type, corner poles will now be placed at the four corners. The four corner guy ropes are then placed over the lower notches of the large pins driven in prolongation of the diagonals at such distance as to hold the walls and ends of the tent vertical and smooth when the guy ropes are drawn taut. A wall pin is then driven through each remaining wall loop and a large pin for each guy rope is driven in line with the corner guy pins already driven. The guy ropes of the tent are placed over the lower notches, while the guy ropes of the fly are placed over the upper notches, and are then drawn taut. Brace ropes, when used, are then secured to stakes or pins suitably placed.

CONICAL WALL TENT.

Drive the door pin and center pin 8 feet 3 inches apart. Using the hood lines, with center pin as center, describe two concentric circles with radii 8 feet 3 inches and 11 feet 3 inches.

In the outer circle drive two door guy pins 3 feet apart. At intervals of about 3 feet drive the other guy pins.

In other respects conical tents are erected practically as in the case of pyramidal tents.

TO STRIKE COMMON, WALL, PYRAMIDAL, AND CONICAL WALL TENTS.

STRIKE TENTS.

The men first remove all pins except those of the four corner guy ropes, or the four quadrant guy ropes in the case of the conical wall tent. The pins are neatly piled or placed in their receptacle.

One man holds each guy, and when the ground is clear the tent is lowered, folded, or rolled and tied, the poles or tripod and pole fastened together, and the remaining pins collected.

TO FOLD TENTS.

For folding common, wall, hospital, and storage tents: Spread the tent flat on the ground, folded at the ridge so that bottoms of side walls are even, ends of tent forming triangles to the right and left; fold the triangular ends of the tent in toward the middle, making it rectangular in shape; fold the top over about 9 inches; fold the tent in two by carrying the top fold over clear to the foot; fold again in two from the top to the foot; throw all guys on tent except the second from each end; fold the ends in so as to cover about two-thirds of the second cloths; fold the left end over to meet the turned-in edge of the right end, then fold the right end over the top, completing the bundle; tie with the two exposed guys.

METHOD OF FOLDING PYRAMIDAL TENT.

The tent is thrown toward the rear and the back wall and roof canvas pulled out smooth. This may be most easily accomplished by leaving the rear-corner wall pins in the ground with the wall loops attached, one man at each rear-corner guy, and one holding the square iron in a perpendicular position and pulling the canvas to its limit away from the former front of the tent. This leaves the three remaining sides of the tent on top of the rear side, with the door side in the middle.

Now carry the right-front corner over and lay it on the left-rear corner. Pull all canvas smooth, throw guys toward square iron, and pull bottom edges even. Then take the right-front corner and return to the right, covering the right-rear corner. This folds the right side of the tent on itself, with the crease in the middle and under the front side of tent.

Next carry the left-front corner to the right and back as described above; this when completed will leave the front and rear sides of the tent lying smooth and flat and the two side walls folded inward, each on itself.

Place the hood in the square iron which has been folded downward toward the bottom of the tent, and continue to fold around the square iron as a core, pressing all folds down flat and smooth and parallel with the bottom of the tent. If each fold is compactly made and the canvas kept smooth, the last fold will exactly cover the lower edge of the canvas. Lay all exposed guys along the folded canvas except the two on the center width, which should be pulled out and away from bottom edge to their extreme length for tying. Now, beginning at one end, fold toward the center on the first seam (that joining the first and second widths) and fold again toward the center, so that the already folded canvas will come to within about 3 inches of the middle width. Then fold over to the opposite edge of middle width of canvas. Then begin folding from opposite end, folding the first width in half, then making a second fold to come within about 4 or 5 inches of that already folded; turn this fold entirely over that already folded. Take the exposed guys and draw them taut across each other, turn bundle over on the under guy, cross guys on top of bundle, drawing tight. Turn bundle over on the crossed guys and tie lengthwise.

When properly tied and pressed together this will make a package 11 by 23 by 34 inches, requiring about 8,855 cubic inches to store or pack.

Stencil the organization designation on the lower half of the middle width of canvas in the back wall.

CHAPTER VI.

FIELD SERVICE.

Section 1. Principles of training.

Inaction gives every advantage to the enemy.

The offensive alone gives decisive results.

A quick and energetic offensive minimizes losses.

An advance against the enemy's position once entered upon must be continued. To go back under fire is to die.

The best way to hold down the fire of the enemy and to diminish his power to inflict losses is to bring the position he occupies under well-conducted and continued fire.

Present as small a target as possible to the enemy by utilizing every bit of cover the ground affords.

Individual skill in marksmanship is an advantage in battle only when united with fire discipline and control.

Constant movement to the front lessens the effect of the enemy's fire. Modern battles fought in the open show that the heaviest losses are in the mid and long ranges. When close range is reached the losses diminish rapidly.

The best protection against artillery fire is a constant but irregular movement to the front. When close to the enemy's position his fire is least effective.

A knowledge of how to use the bayonet and the will to use it must often be the deciding factors in battle.

Finally:

In training we can not go far wrong or fail to accomplish the best results if we keep before our minds the spirit as well as the wording of paragraph 352 of the Infantry Drill Regulations: "The duties of infantry are many and difficult. All infantry must be fit to cope with all conditions that may arise. Modern war requires but one kind of infantry—good infantry." Cavalry, dismounted, should be as efficient as infantry under all conditions of service.

Section 2. Combat.

The field of battle is the final test of the instruction, discipline, and efficiency of the fighting force of any army.

The squadron is the **attack unit** or the **defense unit**, whether operating alone or as part of a regiment. The troops constitute the **firing line** and the **support**.

An individual soldier is concerned only with the enemy in his immediate front, in obeying orders, and instinctively doing what he has been trained to do.

The one requisite necessary to win the battle is intelligent team work. The army is handled just like a football team. A part is on the first line facing the enemy. Another part, like the half backs, is held back as supports. Another part, like the full backs, is held as a reserve. Each unit, like each player, has a certain duty to perform. When the signal is given, all work together—all play the game—team work. The players consist of all branches of the service.

The same rule holds true down to the smallest unit and even to the individual enlisted man. Each regiment is a team composed of three players—each a squadron. Each squadron is a team of four players—each a troop. In the same manner each troop is a team of two or more platoons; each platoon a team of two sections; and last, but not least, each section is a team of from 6 to 14 players.

The one question that always presents itself on the battle field every minute of the time to every person, whether he be a general or a private, is, **"What play has my team captain ordered, and how best may I act so as to work in conjunction with the other players to bring about the desired result?"—team play.**

To the trooper this means—

First. **Prompt and loyal obedience to the section leader.** Every section always has a team captain. If the section leader and corporal are killed or disabled, other players previously designated take their places. If no one was designated, then the private with the longest service takes command. When the section leader gives the command for a certain play, don't stop to think if the play is a good one, but do your very best to carry out the play as ordered. A poor play in which every

player enters with his whole heart (team work) will often win, while, on the other hand, the best play in which some of the players are skulkers and shirkers will probably fail.

Second. **Never lose touch with your section.** Every individual, as well as every unit, should always be acting under the control of some higher commander. This is necessary if there is to be any unity of action. Therefore if you lose your section, or it becomes broken up, join the first section you can find and obey your new section leader as loyally and as cheerfully as you did your own.

While yet several miles from the enemy's position the troops may come under artillery fire. On green men entering upon their fight, the sound of the projectile whistling through the air, the noise, flash, and smoke on the burst of the shrapnel, and the hum of the various pieces thereafter, all produce a very terrifying effect, but old soldiers soon learn to pay little attention to this, as the danger is not great.

THE MOUNTED ATTACK.

THE TROOP ACTING ALONE.

639. When the troop acting alone charges it is ordinarily divided into two parts, viz, the **attacking line** and the **reserve**, but a platoon is never kept in rear except when the captain so directs.

If the attacking line, or reserve, consists of only one platoon, it is led by its chief; if it consists of two or more platoons, it is led by the senior chief of platoon or by the captain.

When a chief of platoon takes post as leader of two or more platoons, his place as platoon leader is taken by the corresponding file closer. Whenever the **rally** or **assembly** is ordered, the captain may cause the guidon to be displayed at the rallying or assembly point indicated.

640. In instruction exercises the enemy must always be outlined or represented by troopers, who may carry flags, under command of an officer or noncommissioned officer. In the beginning of this instruction these men will occupy fixed positions; later they will be instructed to ride so as to represent the movements of an aggressive enemy. The captain will ex-

plain to the commander the object of the exercise and tell him what to do.

641. The platoons of the **attacking line** may attack in one line or successively, as from column of platoons with extended distances. The captain, in addition to designating a reserve, may direct one or more platoons to execute any special mission. In the absence of special instructions from the captain the leader of each platoon, or combination of platoons, that is acting separately uses his discretion, endeavoring so to employ his command as best to assist in carrying out the general plan indicated by the captain's orders.

642. The reserve, in the absence of special instructions, follows the attacking line at from 100 to 150 yards in readiness to support the attacking line, meet a counter attack, or press the pursuit, as occasion may require.

A platoon designated for a **flank attack** is so conducted by its leader as to fall opportunely upon the enemy's flank.

If a flank platoon be so designated, it attacks from that flank unless otherwise directed.

To guard against a flank attack or an enveloping attack the captain may detach a platoon to move to the threatened flank so as to take an enveloping attack in flank or meet a flank attack. If a flank platoon be so designated, it acts on the corresponding flank unless otherwise directed. When no platoon is specially designated for flank guard, the corresponding duties fall upon the reserve.

643. The captain's commands should include an indication of the objective, unless the latter is obvious, designate the elements of the attack, and state any special mission that is assigned to any element. The captain's orders also usually include an indication of the weapon to be used by the several elements of the attack and may prescribe the formations to be employed. All details not prescribed by the captain are left to the discretion of the commanders of the several elements into which the attack is divided.

Where the same weapon is to be used by all it is ordinarily drawn at the captain's orders before the instructions for the attack are given. Otherwise, each commander gives the proper orders for drawing saber or raising pistol.

644. The troop being, for example, in line, marching at a gallop with sabers drawn, the captain may command: **Objective, Cavalry in front; Second and Third platoons, to the charge; First platoon, flank attack; Fourth platoon, reserve.** Each element of the attack proceeds at once to carry out its orders. The leader of the attacking line (whether the captain or a lieutenant) directs the leader of the base platoon to close on him before charge is ordered (par. 563). In other respects, the charge is conducted as explained for the platoon (pars. 562–564).

The troop being, for example, in column of platoons, marching at a gallop, no weapon drawn, the captain may command (the objective being obvious): **First and Second platoons, pistol attack; Third platoon, reserve; Fourth platoon, left flank guard.** The leader of the attacking line commands: 1. **As foragers,** 2. **MARCH,** and attacks with the pistol according to the principles explained for the platoon (pars. 566–568) as soon as the second platoon completes its deployment on the left of the first platoon. The commanders of the third and fourth platoons move to their positions, drawing saber or raising pistol in their discretion.

Should the captain command, for example: **First and Second platoons, pistol attack in two lines; Third platoon, charge enemy's right flank; Fourth platoon, reserve,** the third platoon may charge with the saber.

Should the captain cause pistols to be raised before ordering the attack all use the pistol.

The above are only examples to indicate the character of the captain's commands. The actual orders must meet the situation presented.

645. At the first indication for the charge the ground scouts move out from the flanks of the attacking line (par. 569) unless otherwise specially directed. The captain usually sends out any necessary combat patrols; but each leader of a separate group is responsible that any further steps necessary for the immediate protection of his own flanks are taken.

THE TROOP IN THE SQUADRON.

646. The troop in squadron, in mounted attack, has no reserve, but may have a support in the discretion of the major.

If on the flank of the squadron, its own flank defense must be provided by the captain in the absence of instructions.

PASSING FROM MOUNTED ACTION TO DISMOUNTED ACTION.

647. The movements are executed by commands and methods corresponding to those already explained for the squad and platoon, with the following modifications and additions thereto:

The horses of the captain and of one bugler who accompanies the captain are held by the other bugler or by a man specially designated *in advance* for that duty.

The horses of the first sergeant and other men out of ranks, and not otherwise specially provided for, are secured in the same manner indicated in the corresponding provisions for the squad and platoon.

648. The guidon, in the absence of instructions to the contrary, takes general charge of the led horses and performs the duties prescribed for the trooper in charge of the horse-holders and horses (par. 431). Should one of the platoon file closers be senior to the guidon, the first sergeant cautions such file closer and the guidon *in advance* that the senior will have general charge of the led horses of the troop while such senior remains with the horses. In the absence of other special instructions, the file closer of each platoon reports the additional troopers of his platoon to the troop commander after Nos. 2 dismount. The guidon remains in general charge of the other horse-holders and the horses, a designated trooper having, under the guidon, immediate charge of the horse-holders and horses of each platoon.

649. The captain gives any desired special instructions to the guidon and sees that proper measures for security are taken. On dismounting, the first sergeant remains near the horses long enough to see that the designated noncommissioned officer is in charge and is making proper provision as regards the horses; he then joins the captain. Any sergeants who may be extra file closers without special assignment of duties join the captain; other extra file closers not specially assigned join the platoons with which they were riding. The captain, on dismounting, takes position at the point where he

desires the base platoon to form or otherwise indicates that position to the leader of the base platoon. The platoon that was the base when the troop dismounted remains the base of the dismounted formation in the absence of other indication. Its leader takes position at once in rear of the captain, or as indicated by the latter, and the dismounted platoon forms in double column or as directed. The other platoons form so as to extend the formation in line of double columns, or as the captain orders, in accordance with the principles governing the assembly of the troop. The captain may direct the platoon leaders to proceed at once to designated positions without forming the troop as a unit. *In all cases the measures taken must be such as to prevent unnecessary exposure of men or horses to hostile view or fire.*

Dismounted Combat (The Troop).

GENERAL CONSIDERATIONS.

650. When the troop, acting alone, dismounts to engage in deliberate fire action the captain makes provisions for the led horses (par. 649) and at once sends out scouts (usually two experienced men detailed and trained as such) to the front to reconnoiter. The captain reconnoiters usually in rear of, but in touch with the scouts, and accompanied by platoon commanders and the first sergeant; he explains to them the purpose of the attack, gives them all the information he has about the enemy and about our own troops in the vicinity, points out to them the objective of each platoon if they are to advance, or indicates the part of the line to be held by each if to take the defensive.

651. The advance of a troop after dismounting, in anticipation of fire action either in attack or defense is made in close order, preferably in columns of fours or twos, until the probability or the actual encountering of hostile fire makes it advisable to deploy. After such deployment the advance (now designated **the approach**) may be continued in line of skirmishers or other suitable formation before opening fire. The approach dismounted may often be facilitated, better advantage taken of cover, and losses minimized by using formations such as

line of platoons each in column of twos or troopers, or a succession of thin lines at varying distances, one directly behind the other or echeloned. The choice of a formation would depend upon conditions, such as the effectiveness of the enemy's fire, cover afforded by folds of the ground, or by natural obstacles. If the deployment is found to be premature, it will generally be better to assemble the troop and resume the advance in close order.

The formations mentioned as facilitating the advance, viz, line of platoons in column of twos or troopers, or a succession of thin lines find application most frequently in the approach when the ground is so difficult or the cover so limited as to make it desirable to take advantage of the few favorable routes on which to move forward.

652. The approach in a succession of thin lines is, if possible, made by sections under the immediate direction of platoon commanders with wide intervals between skirmishers. By so advancing continuous control of the line is assured. If that method is not practicable, then the successive lines are made up of one or more men from each four of a platoon on the skirmish line, the command being: 1. **Numbers 1 (or such number or numbers), first (or such) platoon, forward; 2. MARCH.**

The captain having pointed out in advance the selected position in front of the lines which are to be occupied, the designated numbers move to the front. The line thus formed preserves the original intervals as nearly as practicable; when this line has advanced to the indicated position, a second line is sent forward by similar commands, and so on at irregular distances until the whole line has advanced. Upon arriving at the indicated position the first line is halted. Successive lines upon arriving halt on line with the first, and the men take their proper places in the skirmish line.

Ordinarily each line is made up of one man or more from each four of a platoon, and the men of a four are sent forward in order from right to left. The first line is led by the platoon leader of that platoon, the second by its file closer, and so on. Under favorable conditions the successive lines may be made up from all of the platoons which are deployed as skirmishers.

The movement is conducted in quick time unless conditions make double time necessary.

After the entire troop has reached the line a further advance in the same manner may be found advisable.

The movement in a succession of thin lines is used to cross a wide stretch swept or likely to be swept by artillery fire or heavy long-range rifle fire which can not profitably be returned. Its purpose is the building up of a strong skirmish line preparatory to engaging in a fire fight. This method of advancing by thin lines results in serious, though temporary, loss of control over the successive platoons of the troop. Its advantages lie in the fact that it offers a less definite target, hence is less likely to draw fire.

653. These are merely suggested methods of advancing preliminary to opening the fire attack; other formations better adapted to particular occasions or terrain may be devised. The best formation is that which advances the line the farthest without drawing the enemy's fire, or, if he does open fire, then with the least loss of men, time, and control.

THE FIRE ATTACK.

654. The principles involved in the fire attack are discussed under **Dismounted Fire Action, the Squadron** (par. 716), and necessary modifications as to details made under **Dismounted Action, the Regiment** (par. 760).

When the enemy's fire makes it impracticable for the troop to move forward in one of the above-mentioned formations, it may advance by rushes.

Being in skirmish line: 1. **By platoon (section) from the right (left),** 2. **RUSH.**

The platoon leader on the indicated flank arranges the details for a prompt and vigorous execution of the rush and puts it into effect as soon as practicable. If necessary he designates the leader for the indicated unit. When about to rush he causes the men of the indicated unit to suspend firing and to hold themselves flat on the ground but in readiness to spring forward instantly. The leader of the rush (at the signal of the platoon leader if the latter is not the leader

of the rush) commands, **Follow me**, and, running at top speed, leads the fraction to the new line, where he halts it and causes it to open fire. The leader of the rush selects the new line if it has not been previously designated.

The first fraction having established itself on the new line, the next like fraction is sent forward by its platoon leader without further command from the captain, and so on, successively, until the entire troop is on the line establishd by the first rush.

The men must be trained to lie perfectly still until the command (since any movement might warn the enemy of the rush to follow), then at command to spring instantly and together to their feet, run at top speed, and drop together at command.

655. In an advance by rushes, leaders of platoons in firing positions are responsible for the delivery of an effective fire to cover the advance of each rushing fraction. Troops are cautioned so to fire as not to endanger the flanks of advanced portions of the firing line. The husbanding of ammunition for the final stages of the fire attack must be constantly impressed on the men.

The rush of a troop as a whole is conducted by the captain on the same principle as described for the platoon. The captain leads the rush, platoon leaders lead their respective platoons, and file closers follow the line to insure prompt and orderly execution of the advance.

When the foregoing method of rushing, by running, becomes impracticable, any method of advance that carries the attack closer to the enemy, such as **crawling**, should be employed.

The charge corresponds to that described in **the squadron.**

When a leader in command of a platoon or section receives an order or signal to rush, he should cause his men to suspend firing and to hold themselves flat but ready for a sprinter's start. He selects the point, as far as possible with reference to cover, to which he intends to carry his unit forward. He then gives the command "**RUSH,**" springs forward, and running at full speed about three paces ahead of his men, leads them in the rush. Arriving at the position he has selected, he throws himself prone, and the men drop on either side of him. All crawl forward to good firing positions, considering the cover

also, and the leader gives the necessary orders for resuming the fire. The latter will include giving the range again, the length of the rush being subtracted from the sight setting ordered at the last position.

The original platoon and section divisions of the troop in the firing line should be maintained, if possible, and should only be broken up if the mingling of reinforcements renders it unavoidable.

Upon joining the firing line, officers and noncommissioned officers accompanying a reinforcement take over the duties of others of like grade who have been disabled, or they distribute themselves so as best to exercise their normal functions. Conditions vary and no exact rules can be prescribed. It is essential that all assist in mastering the increased difficulties of control.

FIRE.

657. Ordinarily rifles are loaded and extra ammunition in bandoliers is distributed before the troop deploys for combat. In close order the troop executes the firings at the command of the captain, who posts himself in rear of the center.

Firings in close order are exceptional.

658. Signals during fire action: The voice is generally inadequate for giving commands during firing, and must be replaced by signals of such character that proper fire direction and control are assured (par. 989). To attract attention signals must usually be preceded by the whistle signal (short blast). A fraction of the firing line about to rush should avoid using the long blast signal as an indication to suspend firing. Officers and men behind the firing line can not ordinarily move freely along the line, but each must depend on the other's watchfulness, in addition to his own, and make use of prescribed signals (par. 997, Cav. Drill Reg., 1916). All should place themselves so as to see their immediate superiors and subordinates.

The bugler with the captain assists by observing the enemy, the target, and the fire effect, and by watching for and transmitting commands.

The effect of fire and the influence of the ground in relation thereto, and the individual and collective instruction in marksmanship are treated in the **Small-Arms Firing Manual.**

659. Volley fire has limited application. It has a moral effect both on the troops employing it and on those subjected to it. It may be employed to restore control. In defense it may be used in the early stages of the action if the enemy presents a large compact target. It may be used by troops especially posted on the flank or in a dominant position in rear of an attacking force for the purpose of aiding the advance by so-called *fire of position.* When the ground near the target is such that the strike of bullets can be seen from the firing line, ranging volleys may be used to correct the sight setting.

In combat, volley firing, if used, is executed habitually by platoon.

660. Fire at will is the class of fire normally employed in attack or defense.

661. Clip fire has limited application. It is principally used (*a*) in the early stages of combat to steady the men by habituating them to brief pauses in firing; (*b*) to produce a short burst of fire.

FIRE DIRECTION.

662. When the troop is large enough to be divided into platoons, it is impracticable for the captain to command it in combat. His efficiency in managing the firing line is measured by his ability to enfore his will through the platoon leaders. Having indicated clearly what he desires them to do, he avoids interfering except to correct serious errors or omissions.

The captain directs the fire of his troop or of designated platoons. He designates the target and, when practicable, allots a part of the target to each platoon. Before beginning the fire action he determines the range, announces the sight setting, and indicates the class of fire to be employed and the time to open fire. Thereafter he observes the fire effect, corrects material errors in sight setting, prevents exhaustion of the ammunition supply, and causes the distribution of such extra ammunition as may be received.

FIRE CONTROL.

663. In combat the platoon is the *fire unit.* From 20 to 35 rifles are as many as one leader can control effectively.

Each platoon leader puts into execution the commands or directions of the captain, having first taken such precautions to insure correct sight setting and clear description of the target or aiming point as the situation permits or requires (par. 141); thereafter he gives such additional commands or directions as are necessary to exact compliance with the captain's will. He corrects the sight setting when necessary. When the target can not be seen with the naked eye, he designates an aiming point (by one of the methods described in par. 141 if necessary) and orders fire upon it, first announcing the proper sight setting to correct the error of aim.

In general, **platoon leaders** observe the target and the effect of the fire and are on the alert for the captain's commands; they observe and regulate the rate of fire. The **file closers** watch the firing line and check every breach of fire discipline. **Chiefs of section** transmit commands when necessary, observe the conduct of their sections and abate excitement, assist in enforcing fire discipline, and participate in the firing unless otherwise directed by the platoon commanders.

The best troops are those that submit longest to fire control. To avoid or delay such loss of control should be the constant aim of all.

Fire control implies the ability of the commander to stop the firing, change the sight setting and target, and resume a well-directed fire.

FIRE DISCIPLINE.

664. Fire discipline implies, besides an unquestioning habit of obedience to commands, a control of the rifle by the soldier (the result of training), which will enable him in action to make hits instead of misses. It embraces taking advantage of the ground; proper understanding of orders as to target designation; care in setting the sight and delivery of fire; constant attention to the orders of the leaders, and careful observation of the enemy; an increase of fire when the target is favorable, and a cessation of fire when the enemy disappears; economy of ammunition. Orderly and regular methods

on the part of leaders aid fire discipline. Self possession and a confident tone in giving commands and instructions are indispensable.

In combat, shots which graze the enemy's trench or position, and thus reduce the effectiveness of his fire, have the approximate value of hits; such shots only, or actual hits, contribute toward fire superiority.

Fire discipline implies that, in a firing line without leaders, each man retains his presence of mind and directs effective fire upon the proper target.

665. To create a correct appreciation of the requirements of fire discipline, men are taught that the rate of fire, having constantly in view the available ammunition supply, should be as rapid as is consistent with accurate aiming; that the rate will depend upon the visibility, proximity, and size of the target; and that the proper rate will ordinarily suggest itself to each trained man usually rendering cautions or commands unnecessary.

666. In attack, ammunition must be used with extreme caution in order that the highest rate of fire man be employed at the halt preceding the assault and in pursuing fire.

667. In defense, when the target disappears behind cover, platoon leaders suspend fire, prepare their platoons to fire upon the point where it is expected to reappear, and greet its reappearance instantly with a vigorous burst of fire. In defense, the available ammunition supply is not ordinarily so limited as in the attack.

668. For communication between the firing line and the reserve or commander in rear certain signals are prescribed (par. 997). In transmission their concealment from the enemy's view should be insured. In the absence of signal flags the headdress or other substitute may be used.

RANGES.

669. For convenience of reference, ranges are classified as follows:

0 to 600 yards, close range.
600 to 1,200 yards, effective range.
1,200 to 2,000 yards, long range.
Over 2,000 yards, distant range.

The distance to the target must be determined as accurately as possible and the sights set accordingly.

Aside from training and morale, this is the most important single factor in securing effective fire at the longer ranges.

Except in a deliberately prepared defensive position, the most accurate and only practicable method of determining the range, in absence of a suitable mechanical range finder, will generally be to take the mean of several estimates made independently.

Estimation of ranges.—Five or six officers and men, selected from the most accurate estimators in the troop and designated as *range estimators*, should be specially trained in estimating distances.

Whenever necessary and practicable, the captain assembles the range estimators, points out the target to them, and adopts the mean of their estimates. The range esimators then take their customary posts.

When a range is announced, the men at once set their sights to correspond, and whenever practicable an examination of the pieces is made in order to verify the sight setting.

(*C. C. D. R., No. 1, Apr. 26, 1917.*)

Firing is delayed as long as possible for three reasons, viz: (*a*) At the extreme ranges little damage can be done on the enemy, and ineffective firing always encourages him; (*b*) halting to fire delays the advance, and the great object to be accomplished is to close in on the enemy where you can meet him on better terms; (*c*) plenty of ammunition will be required at the decisive stage of the fight, and it is very difficult to send extra ammunition up to the firing line. **Therefore never fire until ordered to do so, and then never fire more than the number of rounds designated. Never fire after the command "cease firing" is given.**

Ammunition in the bandoleers will ordinarily be expended first. Thirty rounds in the right pocket section of the belt will be held as a reserve, to be expended only when ordered by an officer.

Soon, however, it will be necessary to halt and open fire on the enemy in order to cause him some loss, to make his riflemen keep down in their trenches, and to make them fire wildly. It is probable that at this time and until you arrive much closer

you will not see any of the enemy to fire at. You may not even see any trenches nor know just where the enemy is. Your higher officers, however, with their field glasses and the messages they receive, will know. Each troop will be assigned a certain front to cover with its fire. **Therefore be careful to fix your sights at the designated range and fire only at the designated target.** This means team work in firing, which is one of the most important elements of success.

The firing line advances from position to position by means of rushes. At long range the entire line may rush forward at the same time, but as the range decreases one part of the line rushes forward while the remainder keeps up a hot fire on the enemy. The number taking part in each rush decreases as the fire of the enemy becomes warmer, until perhaps only one squad, or even less, rushes or crawls forward at a time, protected by the fire of the rest of the company. The distance covered by each rush also becomes less and less. After any rush no part of the line again advances until the rest of the line is up. **In making a rush, the leader of the unit gives the signal and leads the way. The rest follow. No attempt is made to keep a line, but each man rushes forward at a run, seeking only to reach the new halting position as quickly and with as little exposure as possible.** When halted, the skirmishers need not be in a perfect line, but every advantage should be taken of the ground for concealment and protection. It is necessary only that no man or group of men should interfere with the fire of other parts of the firing line.

The noise on the firing line will be great. Leaders will be disabled and new men will take their places. Reinforcements coming up will cause units to become mixed. To the green man everything may appear to be in confusion, but this is not so. This is war as it really is. **If you have lost your section or your section leader, join the leader nearest to you.** This is the way the game is played.

As long as the fight lasts every available rifleman must be kept in the firing line. The first and last consideration is to win the battle. **Therefore, under no circumstances will any soldier be permitted to go to the rear, either for ammunition or to assist the wounded.**

If the attacking force can no longer advance, it is much safer to throw up hasty intrenchments and await the arrival of re-

inforcements or darkness than it is to retreat. Retreating troops are the ones that suffer the greatest. This lesson is taught by every great war. **Therefore, always remember that the safest thing to do is to stick to the firing line.**

Troops on the firing line, when not actually engaged in firing at the enemy, busy themselves throwing up shelter trenches. It only requires a few minutes to construct a trench that gives great protection. **Therefore, never get separated from your intrenching tool.**

Concealment is no less important than protection. Therefore, when conditions permit, as is generally the case when on the defensive, every effort should be made to hide intrenchments by the use of sod, grass, weeds, bushes, etc.

In making an attack the infantry is always supported when possible by its own artillery, which continues to fire over its head until the infantry arrives very close to the enemy's trenches. This fire is helping you a great deal by keeping down the fire of the enemy's infantry and artillery. Therefore, don't think you are being fired into by your own artillery because you hear their shells and shrapnel singing through the air or bursting a short distance in your front, but rather be thankful you are receiving their help up to the very last minute.

In the last rush which carries the enemy's position there is always much mixing of units. The firing line does not continue rushing madly as individuals after the enemy, but halts and fires on him until he gets out of good range. The pursuit is taken up by formed troops held in reserve or by the firing line only after its units are again gotten together.

As the fighting often lasts all day, and great suffering is caused from thirst, **don't throw away your canteen when the fight commences.** It may also be impossible to get rations up to the line during the night. **Therefore, it is advisable to hold onto at least one ration.**

As the recent war has shown the possibility of hand-to-hand fighting, especially at night, each soldier should be schooled in the use of the bayonet.

The following has particular reference to the duties of platoon and section leaders and to the teamwork of the platoon in combat:

Attacking troops must first gain **fire superiority** in order to reach the hostile position. By gaining fire superiority is meant making one's fire superior to that of the enemy in volume and accuracy, and it depends upon the number of rifles employed, the rate of fire, the character of the target, training and discipline, and fire direction and control. When the fire of the attackers becomes effective and superior to that of the defenders the latter are no longer able to effectively and coolly aim and fire at the former, and, as a consequence, the attackers are able to inaugurate a successful rush or advance which carries them nearer to the enemy's position.

When a trained organization has been committed to the attack, the gaining of fire superiority depends upon the way in which **fire direction** and **fire control** are exercised.

The captain **directs** the fire of the troop. He indicates to the platoon commanders the target (enemy) which the troop is to fire and advance upon, and tells each upon which part of this target he is to direct the fire of his platoon. When he desires the fire to be opened, he gives the necessary commands or signals, including the range at which the sights are to be set.

When the fire fight has once started, it becomes to a great extent a fight of a number of platoons. The platoon is the largest organization which can be controlled by a single leader in action. The platoon commander (lieutenant or sergeant) **controls** its fire in order to gain the maximum fire effect and to avoid wasting ammunition. He must try his best to make the fire of his platoon effective, to get it forward, and to support neighboring platoons in their effort to advance. At the same time he must hold himself subject to his captain's directions. He should take advantage of every chance to carry his platoon forward unless otherwise ordered. In all this he is assisted by his section chiefs (sergeants) and by his corporals.

At the commencement of an engagement the platoon commander will give the objective (part of the enemy's line or aiming target) at which his platoon is to direct its fire. Noncommissioned officers must be sure that they see and understand the objective, and that all the men in their squads do likewise. Fire is then directed at this objective without further command until the platoon commander gives a new objective.

Men should be instructed to aim at that part of the target assigned to their platoon which corresponds with their own position in their own platoon, so that there will be no portion of the target which is not covered by fire. A portion of the enemy's line not covered by fire means that that portion is able to coolly aim and fire at their opponents.

In an engagement the voice can seldom be heard over a few feet, and the platoon commander will generally have to convey his orders by signals. A sergeant may be able to shout orders to his section, and orders may be repeated along a skirmish line by shouting. Care should be taken that orders intended for one platoon only are not thus conveyed to another platoon.

A short blast on the whistle, given by the platoon commander, means "Attention to Orders." All noncommissioned officers at once suspend firing and glance toward the platoon commander to see if the latter has any signals or orders for them. If not, they resume firing. A long blast on the whistle means "Suspend Firing." When a noncommissioned officer hears this signal from his platoon commander, he should at once shout "Suspend Firing." Upon receiving a signal, the noncommissioned officer for whom it is intended should at once repeat it back, to be sure that it is correctly understood.

As a rule, rushes should be started by a unit on one flank and should be followed in succession by the other units to the opposite flank. Each succeeding unit should halt on the line established by the unit which first rushed. When a unit is about to rush, leaders in charge of adjacent units should caution their men to be careful not to fire into the rushing unit as it bounds forward.

When one unit suspends fire for the purpose of rushing, adjacent leaders should arrange to have a portion of their men turn their fire on the target of the rushing unit, to the end that there may be no portion of the enemy's line not under fire and able to fire coolly on the rushing unit.

Rushes should be made for as long a distance as possible, due regard being had for the wind of the men and not to get beyond supporting distance of the other units. Long rushes facilitate an advance, and quickly place a skirmish line close to the enemy's position, where its fire will have more effect.

An attacking line suffers less from casualties at short ranges than it does at mid range.

Every advantage should be taken to utilize the cover available. The best kind of cover is that which, while it masks the skirmishers from the sight and fire of the enemy, affords favorable conditions for firing and for readily advancing. In order to allow men to regain their wind, or should the fire of the enemy be so effective as to prevent a further advance without reinforcement, advantage may be taken to lie close in cover, or hasty fire trenches may be thrown up in order to allow the line to maintain its position. "**To go back under fire is to die.**"

When a platoon is firing, all noncommissioned officers watch every opportunity to make the fire more effective. The section chiefs and corporals should constantly watch the men to see that they do not become excited, fire too hastily or without aim, that their sights are set at the correct range, that they are obviously firing at the designated target, and that they assume steady firing positions and take advantage of cover. In performing these duties it may be necessary for the section chiefs to be constantly crawling along the line. A substitute chief assists the chief of his section by supervising the fire of the men near him, firing when not actively engaged in that duty.

Bayonets are fixed preparatory to a charge when armed with that weapon. This command is usually given by the bugle. Only two or three men in each section should fix their bayonets at the same time, in order that there may be no marked pause or diminution in the fire at this critical stage of the engagement.

In order to be effective in combat, the platoon must be thoroughly trained to work as a team. Each noncommissioned officer must be conversant with the signals and commands and the proper methods for instantly putting into effect the orders of his platoon commander. Each private must be trained until he instinctively does the right thing in each phase of the action.

Section 3. Patrolling.

The designation of a patrol indicates the nature of the duty for which it is detailed, as, for example, visiting, reconnoitering, exploring, flanking, combat, harassing, pursuing, etc. An In-

fantry patrol consists, as a rule, of from 3 to 16 men, a Cavalry patrol generally of from 4 to 10 men.

Reconnoitering patrols are habitually small and seek safety in concealment or flight, fighting only when their mission demands it. The most skillful reconnoissance is where patrols accomplish their mission and return without being discovered by the enemy. When resistance is expected stronger detachments are required. These cover themselves with small patrols of two to four men, the remainder acting as support.

The commander determines the number and strength of patrols and when they are to be sent out. It is a cardinal principle to send out patrols of such strength only as will accomplish the object.

The officer sending out the patrol verifies the details, designates a second in command, and gives the necessary instruction. The orders or instructions for a patrol, or for any detachment going on reconnoissance, must state clearly where the enemy is or is supposed to be, what information is desired, what features are of special importance, the general direction to be followed; whether friendly patrols are liable to be encountered, and where messages are to be sent or the patrol is to report. Important and comprehensive instructions should be in writing, but precautions against capture of papers must be taken. An officer sending out a patrol must be certain that his orders are understood. Detailed instructions are, as a rule, avoided. When necessary the time of return is stated.

The patrol leader should be selected with care. He should be an excellent horseman, have good judgment, courage, be able to read maps, make sketches, and send clear and concise messages. In addition to his ordinary equipment, he should have a map of the country, a watch, field glass, compass, whistle, message blanks, and pencils.

The leader of a patrol should carefully inspect the men and horses before starting out. He should see that the horses are well shod and in good working condition. Nervous horses or those that neigh when left alone should not be taken. The equipment of each man should be complete and so arranged as to prevent rattling. Articles that are liable to glitter in the sunlight should be covered. Nothing should be taken along that would be of information to the enemy if any members of

the patrol were captured, for example, copies of orders, maps with positions of troops marked thereon, letters, newspapers, or collar ornaments.

The leader then gives his patrol information and instructions. These embrace instructions from higher authority; his detailed plans; information of the country and enemy; the countersign, if any; the point where the patrol will assemble if scattered. He will see that the men understand the prescribed signals.

It must always be remembered that it makes no difference how valuable may be the information that the patrol gets, it is worthless if not sent back in time to be of service. Herein is where most patrols fail. This applies particularly to the information obtained by patrols acting as a point or flankers of advance, rear, and flank guards. Whenever the patrol gets any information, the leader must think whether the commanding officer would change his plans or issue new orders if he had the information. If he would, the information should be sent back at once. If the distance is great or the inhabitants are hostile, it is well to send two men with the message. These men should not travel side by side, but as a patrol of two men. If the information is very important, and the danger of capture is considerable, the message should be sent by two parties, each traveling by a different route. The gaits should be specified.

A message from a patrol should always show (*a*) the place from which it is sent; (*b*) the time it is sent (date, hour, and minute); (*c*) to whom it is sent; (*d*) the message itself; (*e*) what the patrol intends doing after sending the message; (*f*) the name of the sender. Under (*d*) care must be taken to separate what has actually been seen by the patrol from information received from other sources. Care must also be taken not to exaggerate what is seen, but to report only the exact facts.

Whether moving or halted, patrols exercise the greatest vigilance to prevent discovery. No formal formation is or should be prescribed. Under the leader's guidance it moves so as to guard against surprise, usually with point and flankers. To extend the sphere of its observation, still smaller patrols (one or two men) may be sent out for short distances, communication with the leader being maintained by signals. Whatever the formation adopted, it should favor the escape of at least one man in case of surprise.

In patrols of two to five men the commander generally leads. In this formation few signals are necessary, the men simply regulating their movements by his.

In questioning civilians caution is observed not to disclose information that may be of value to the enemy. Strangers are not allowed to precede the patrol. Patrol leaders are authorized to seize telegrams and mail matter, and to arrest individuals, reporting the facts as soon as possible.

Patrols should observe everything for signs of the enemy. Even apparent trifles may be of great value. The finding of a collar ornament showing a man's regiment may enable the chief of staff to determine that the enemy has been reenforced.

Patrols should not travel on the main roads if they can observe them and at the same time make the necessary progress by moving some distance to the side of the roads.

Except in case of attack or of great personal danger, no member of the patrol should fire on hostile troops without orders from the patrol leader. When sent out to gain information, patrols should avoid fighting unless it is absolutely necessary in order to carry out their orders. If the leader determines to fight, he should quickly decide whether he will attack mounted with the saber and thus dispose of the enemy without the noise of fire action. Cases will arise where a quick mounted pistol attack will obtain the best results. If discovered, the patrol would dismount only as a last resort. The leader should always have in mind, as he rides long, what he will do if he meets the enemy.

Villages and inclosures involving danger of surprise are entered with precaution, and for brief periods only. Halts are made at points affording good view, and the country is studied in all directions, landmarks to the rear being impressed on the minds of the men so that the way back can be readily found; the leader consults his map and locates himself thereon.

When a patrol is scattered it reassembles at some place previously selected; if checked in one direction, it takes another; if cut off it returns by a detour or forces its way through. As a last resort it scatters so that at least one man may return with information. Patrols nearing their own lines should march at a walk unless pressed by the enemy.

Occasionally it is advisable for the leader to conceal his patrol and continue the reconnaissance with one or two companions.

Patrols far from their commands or in contact with the enemy often remain out overnight. In such cases they seek a place of concealment, proceeding thereto after nightfall or under cover.

When the enemy is encountered it is very necessary to locate his main force. Information is particularly desired of his strength, whether he has infantry, cavalry, and artillery, the route and direction of his march, or the location of his camp and line of outposts.

Dust clouds indicate moving bodies. Infantry raises a low, thick cloud; cavalry a high, thin cloud; artillery and wagons a broken cloud. The kind of troops, direction of march, and approximate strength may thus sometimes be roughly estimated. If from some position a body of troops can be seen marching along in column, the exact time in minutes and seconds it requires for them to pass a certain point should be noted, together with the formation they are in, thus: Infantry, column of squads, three minutes and twelve seconds; cavalry, columns of twos at a trot, one minute and twenty seconds; wagons, four-mule, five minutes. From this information the strength can be determined by the following rule:

Assuming that infantry in column of squads occupy half a yard per man, cavalry in column of fours 1 yard per man, and artillery and wagons in single column 20 yards per gun, caisson, or wagon, a given point would be passed in one minute by about—

175 infantry.
110 cavalry at a walk.
200 cavalry at a trot.
5 guns, caissons, or wagons.

For troops in column of twos, take one-half of the above estimate.

Patrols should always observe the country marched over, with a view to making a report on the same. The following information is always of value:

Roads.—Direction; kind, whether dirt, gravel, macadam, etc.; width, whether suitable for column of squads, etc.; border,

whether fenced with stone, barbed wire, rails, etc.; steepness in crossing hills and valleys; where they pass through defiles and along commanding heights, etc.; crossroads.

Surrounding country.—Whether generally open and passable for infantry, cavalry, and artillery, or whether broken and impassable, due to fences, woods, crops, ravines; whether good grazing is available, etc.

Railroads.—Single or double track, narrow or broad gauge, tunnels, bridges, cuts, direction, stations, etc.

Bridges.—Material, wood, stone, steel, etc.; length and breadth; number and kind of piers or supports.

Rivers.—Direction; width, depth; kind of bottom, such as mud, sand, rocky, etc.; banks, steep or gentle, open or wooded; rapidity of current; variations in depth at different times as indicated by driftwood and high-water marks; islands; heights in vicinity commanding streams.

Woods.—Extent and shape; kind of trees; free from underbrush or not; clearings, roads, swamps, ravines, etc.

Telegraph lines.—Number of wires, along roads or railroads, stations, etc.

Villages.—Size, kind of houses, nature of streets, means of defense, etc.

Hills and ridges.—Whether slopes are gentle or steep; whether top is narrow or wide; whether ground is broken or smooth, wooded or clear; whether difficult or easy to cross, etc.; whether commanded by other hills.

Defiles.—Their direction, length, and width; whether surrounding heights are passable for infantry and artillery; kind of country at each opening of the defile, etc.

Ravines, ditches, etc.—Width and depth; banks, whether passable for infantry, cavalry, and wagons; whether suitable for trenches, or for movement of troops therein, etc.

In general, every soldier should be constantly on the lookout to obtain information that might be of some military value. Remember that information of the enemy and of the country is worthless unless made known to the proper officials in time to be of use.

Every soldier should be able to find his way in a strange country; should know how to use a compass; should know how to locate the North Star; should be able to travel across coun-

try, keeping a given direction, both by day and by night, and by observing landmarks he should be able to return to the starting point either over the same route or by a more circuitous one. This can easily be learned by a little practice.

It adds a great deal to the value of a soldier if he knows how to use a map to find his way. If he knows how to make a rough sketch of the country, showing the position of roads, streams, woods, railroads, bridges, houses, villages, fields, fences, hills, etc., he has added to his value as a soldier very much, indeed, because a rough sketch of a country will give more and better information at a glance than can be obtained by reading many pages of written description.

Patrolling is one of the most important duties a soldier can learn. Any enlisted man who understands thoroughly his duties as a member of a patrol will understand also most of his duties when with advance or rear guards or when on outpost duty. Patrolling can not be learned merely by reading books nor by work indoors. Thoroughness comes only by actually going out in the country and acting as a patrol.

In carrying out this idea the following scheme is recommended:

Let four or more men and a noncommissioned officer act as a patrol. They assemble at a certain time, at a convenient point on some country road. An officer, whom we will call Captain A, acts as the director; the noncommissioned officer, whom we will call Sergeant B, acts as patrol leader; and the others (Privates C, D, E, etc.) act as members of Sergeant B's patrol.

Assume that the troop (squadron, etc.) has just made camp in this vicinity and that the inhabitants are friendly (or hostile).

Captain A indicates to the rest of the men where the camp is situated and points out where the various sentinels are posted. (This in itself affords an opportunity for much discussion and for teaching many valuable lessons.)

Captain A then calls up Sergeant B and tells him—

(*a*) Just what information Captain A has of the enemy, and also any information of the country or of friendly troops in the vicinity that might be of service to Sergeant B.

(*b*) How many men he shall take for the patrol (this is another problem for Captain A to solve). Any men present

not used as part of the patrol ride along with Captain A as observers.

(*c*) How far he shall go and what country he shall cover with the patrol.

(*d*) Just what information it is particularly desired he shall obtain.

(*e*) Where he shall send his messages and when he shall return.

Example 1:

"Sergeant B, it has just been reported to me that a company of hostile infantry was in camp last night at X, about 5 miles from here on this road. Take 5 men and proceed toward X and find out whether the enemy is still there, and if not, when he left and where he went. Send messages to me here, and return by 8 o'clock this evening."

Example 2:

"Sergeant B, I think I heard the firing of field guns over in that direction a short while ago. Take 6 men and proceed to that high hill you see over there about 4 miles away. Send a message to me here when you reach there. You may go farther if you then think it advisable, but return before daylight. I desire particularly to know if there are any hostile troops in this vicinity, especially artillery. I shall send Sergeant X with 3 men to observe the country from that hill you see over there farther to the south. He will remain there till dark. Send messages to me here. If the troop is not here on your return you will find a note for you underneath this rail."

Example 3:

"Sergeant B, this friendly country boy has just reported that four hostile cavalrymen stopped about half an hour ago at his father's house, which he says is about 2 miles up this road. One of the men seemed to be very sick. You will select eight men from your section and endeavor to capture these men. If they have disappeared you will reconnoiter in that vicinity until dark. This boy will accompany you as a guide. He will ride Private X's horse. I desire particularly to learn the position, strength, and composition of any hostile troops in this vicinity. Send reports to me here. Return before daylight."

Example 4:

"Sergeant B, here is a map of the country in this vicinity on a scale of 1 inch to the mile. Here is where we are camped [indicating position on the map]. I have just learned that foraging parties of the enemy are collecting supplies over here at X [indicating point on map], which is 10 miles off in that direction [pointing across country toward X]. It is reported that this bridge over this stream [indicating same on the map], which is about 3 miles down this road [indicating road and direction on the ground], has been destroyed. You will take three men from your platoon and verify this report. You will also reconnoiter the stream for a distance of 3 miles both above and below the bridge for fords suitable for infantry. Messages will reach me here. Return by 8 o'clock to-night."

Sergeant B then inspects his horses and men and gives them their instructions. The patrol is then formed and moves out exactly as it would under actual war conditions.

Captain A may halt (and assemble if desirable) the patrol at intervals in order to discuss the formation used and the movement of any members of the patrol, their route, use of cover, etc., with the reasons therefor, and compare the same with suggested modifications of the formations, etc. After the discussion, the patrol is again set in motion. Captain A may accompany any part of the patrol. From time to time he presents certain situations to some member of the patrol, being very careful to assume only such situations as might naturally occur.

Thus, take Example 1:

Captain A is with Sergeant B, who, with Private C, is marching along the road as the point of the patrol. The other members of the patrol are distributed to suit the nature of the country over which the patrol is marching. The point has just reached a ridge beyond which the country is open and cultivated for about half a mile. Beyond this the road enters a woods. Captain A now says: "Sergeant B, from this point you see two soldiers in khaki on the road there at the beginning of that cornfield about 200 yards from the woods [points out same]. They are moving in this direction. About 200 yards to the right of these and somewhat farther to their rear you see two more men moving along that rail fence."

Sergeant B now does exactly as he would do in actual war. How does he signal to his patrol? Does he assemble his men? If so, how and where? Does he send a message back to camp; and if so, by whom, and is it written or verbal? (If written, Sergeant B actually writes it and delivers it to Private ——, with the necessary instructions. If verbal, it is actually given to Private —— with instructions.) Captain A must in this case make notes of what the message was. In either case, Private —— ceases to be a member of the patrol and joins Captain A as an observer. He should, however, at some later time be required to repeat his message to Captain A, on the assumption that he had reached camp with the same. The message, whether oral or written, should be thoroughly analyzed and discussed. Was it proper to send a message at this time? Does Sergeant B intend to remain in observation; if so, how long? (Captain A can give such information from time to time concerning the hostile patrol as Sergeant B might reasonably be supposed to learn in view of his dispositions. In order that Captain A may present natural assumptions, it is very essential that in his own mind he should, at the outset, assume a situation for the hostile forces and that he should consider himself as in command of all hostile troops. In this particular case he should assume himself to be in command of the hostile patrol, acting under certain specified orders similar to examples given, and he should conduct this patrol in his own mind in accordance with these orders, giving Sergeant B only such information as he might reasonably be expected to obtain in view of whatever action Sergeant B takes.) Will Sergeant B attempt to capture this patrol? If so, how? Will he avoid fighting and attempt to pass it unobserved; and if so, how and why?

In this manner the exercise is continued. Care must be taken not to have the patrol leader or members state what they would do, but they must actually do it. Explanations and discussions may take place later.

In a similar manner the director may inform Sergeant B (or any member of the patrol) that this hostile patrol is followed by a squad (on the assumption that it is the leading unit of an advance guard), and the exercise is then continued along these lines.

The following are examples of assumption that might be made and carried out:

(*a*) That the patrol is unexpectedly fired upon.
(*b*) That one or more of the patrol is wounded.
(*c*) That a prisoner is captured (let an observer act as prisoner).
(*d*) That a friendly inhabitant gives certain information.
(*e*) That a dust cloud is seen in the distance over the trees.
(*f*) That a column of troops can be seen marching along a distant road.
(*g*) That an abandoned camp is discovered and certain signs noted.
(*h*) That the patrol is attacked by a superior force and compelled to scatter.

There is practically no end to the number of reasonable assumptions that may be made.

Troop officers may use this method of instructing noncommissioned officers in patrolling, advance and rear guard duty, outposts, and in squad leading, in writing messages, in selecting positions for trenches, and in constructing and concealing same. This form of instruction is called "a tactical ride or, if dismounted, a tactical walk." It is very greatly used by all foreign armies. Exercises along the same general lines are conducted for field and staff officers and even general officers, and are called "tactical rides" and "strategical rides," depending upon their object.

After some proficiency has been attained as a result of these tactical rides, the greatest interest and enthusiasm can be awakened in this work by sending out two patrols the same day, one to operate against the other. Each should wear a distinctive uniform. The strength of each patrol, its starting point, route to be followed, and its orders should all be unknown to the other patrol. If blank ammunition is used, an officer should supervise its issue and carefully inspect to see that no man carries any ball cartridges. One umpire should accompany the commander of each party. Each umpire should be fully informed of the strength, orders, and route of both patrols. He must, however, carefully avoid giving suggestions or offering any information to the commander. Observers in these small maneuver problems are generally in the way and none should be permitted to be along.

These small maneuvers may be gradually developed by having one side establish an outpost or fight a delaying action, etc.

It should always be remembered that there is no hard and fast rule prescribing how a patrol of three, five, or any number of men should march. The same is equally true of advance guards, and applies also to the establishment of outposts. It is simply a question of common sense based on military knowledge. Don't try to remember any diagrams in a book. Think only of what you have been ordered to do and how best you can handle your men to accomplish your mission, and at the same time save the men and horses from any unnecessary hardships. Never use two or more men to do what one can do just as well, and don't let your men get beyond your control.

In addition to the signals prescribed in the Cavalry Drill Regulations, the following should be clearly understood by the members of a patrol:

Enemy in sight in small numbers, hold rifle above the head horizontally; enemy in force, same proceeding, raising and lowering the rifle several times; take cover, a downward motion of the hand.

Other signals may be agreed upon, but they must be familiar to the men; complicated signals are avoided. Signals must be used cautiously so as not to convey information to the enemy.

Section 4. Advance guards.

The advance guard is a detachment of the main body which precedes and covers it on the march. The primary duty of an advance guard is to insure the safe and uninterrupted march of the main body. Specifically its duties are:

1. To guard against surprise and furnish information by reconnoitering.

2. To push back small parties of the enemy and prevent their observing, firing upon, or delaying the main body.

3. To check the enemy's advance in force long enough to permit the main body to prepare for action.

4. When the enemy is encountered on the defensive, to seize a good position and locate his lines, care being taken not to bring on a general engagement unless the advance guard commander is empowered to do so.

5. To remove obstacles, repair the road, and favor in every way the steady march of the column.

The strength of the advance guard will vary with the proximity of the enemy and character of the country; for a regiment it will generally consist of from two troops to a squadron, for a squadron of one troop; for a troop of from a section to a platoon. The advance guard commander is responsible for the proper performance of the duties with which it is charged and for its conduct and formation.

The advance guard provides for its security and gains information by throwing out to the front and flanks smaller bodies. Each part must keep in touch with the unit from which it is sent out. An advance guard is generally divided into a reserve and a support; where it consists of less than a squadron, the reserve is generally omitted.

The support sends forward an advance party, which, in turn, sends forward a point. In small advance guards the point precedes the advance party about 350 yards, the advance party the support about 500 yards, and the support the main body about 600 yards. Where advance guards are large enough to require a reserve these distances are increased about one-fourth, the reserve following the support, the main body following the reserve at a distance varying from 500 to 800 yards.

Unless the country to the flanks is distinctly visible from the roads for a distance of what may be said to be effective rifle fire, approximately 1,000 yards, flanking patrols of two or three men each should be sent out from the advance party, and, when in proximity of the enemy, in addition from the support. When the nature of the country is such that patrols may move across country without unduly delaying the march these patrols should march at a distance of from 500 to 600 yards from the flank of the body from which detached. For the examination of any object, such as a wood, buildings, etc., examining patrols should be sent out from the main body. The usual method of protecting the flanks, particularly when the country is at all cut up or difficult, is to send out patrols from time to time to some point from which a good outlook can be obtained, or which will afford protection to the enemy. These patrols remain in observation, observer being dismount-

ed, his horse held by another trooper until the advance guard has passed, when they rejoin the nearest subdivision, as quickly as possible working their way to that to which they belong during the halts or by riding up the side of the road. By sending out a succession of small patrols in this manner the flanks are protected. Should the advance party become depleted, it must be reenforced from the support.

A squadron acting as advance guard would have two or three troops in reserve and one or two in support. The support would send forward as advance party two platoons, the advance party in turn sending forward as point one section. A troop acting as advance guard would have no reserve and would send forward as advance party one platoon. All of the above may be changed as circumstances warrant.

Cases may arise when the best means of covering the head and flanks of the column will be by a line of skirmishers extended at intervals of from 5 to 50 yards, as, for instance, when passing through high corn, underbrush, etc.

It must always be remembered that the principal duty of the advance guard is to secure the uninterrupted march of the main body. If the point is fired upon, it should at once deploy and endeavor to advance fighting. The flankers should assist in this and endeavor to locate the enemy's flank should there be such resistance that advance was impossible. Each succeeding body should march promptly forward, and in turn be placed in action, with the idea of clearing the way for the advance of the main body. Should this be impossible, the commander of the entire body must determine what measures he will take.

Section 5. Rear guards.

A rear guard is a detachment detailed to protect the main body from attack in rear. Cavalry is an excellent arm for rear guard duty on account of its mobility. While part of the cavalry is using dismounted fire action, the other part may gallop back and take up a new position. In a retreat it checks pursuit and enables the main body to increase the distance between it and the enemy and to re-form if disorganized. The general formation is that of an advance guard reversed.

Its commander should take advantage of every favorable opportunity to delay the pursuers by obstructing the road, or by taking up specially favorable positions from which to force the enemy to deploy. In this latter case care must be taken not to become so closely engaged as to render withdrawal unnecessarily difficult. The position taken should be selected with reference to ease of withdrawal and ability to bring the enemy under fire at long range.

Section 6. Flank guards.

A flank guard is a detachment detailed to cover the flank of a column marching past, or across the front of, an enemy. It may be placed in position to protect the passage, or it may be so marched as to cover the passage. The object of the flank guard is to hold the enemy in check long enough to enable the main body to pass, or, like the advance guard, to enable the main body to deploy. Like all other detachments, it should be no larger than is necessary, and should not be detailed except when its protection is required.

When a flank guard consists of a regiment or less, its distance from the main body should not be much over 5 miles. Practicable communication must exist between it and the main body. The flank guard is marched as a separate command; that is, with advance or rear guards, or both, as circumstances demand, and with patrolling on the exposed flank.

Section 7. Outposts.

Troops not on the march provide for their security by outposts. The general duties of an outpost are reconnoissance, observation, and resistance.

The specific duties are:

1. To protect the main body, so that the troops may rest undisturbed.

2. In case of attack, to check the enemy long enough to enable the main body to make the necessary dispositions.

During an advance the outposts are usually detailed from the advance guard. During the retreat the outposts for the night usually forms the rear guard the next day. If the com-

mand remains in bivouac, the new outpost generally goes on duty at daybreak.

The vigilance of outpost troops must be unceasing, but they should avoid bringing on combats or unnecessarily alarming the command. Firing disturbs the rest of troops and, if frequently indulged in, ceases to be a warning.

No trumpet signals except "to arms" or "to horse" are sounded, and all unnecessary noises must be avoided.

As a rule an outpost will not exceed one-sixth the strength of a command. For a single troop a few sentinels and patrols will suffice; for a larger command a more elaborate system must be devised. The troops composing the outpost are generally divided into a reserve and several supports.

At a proper distance in front of the camp of the main body a line which offers a good defensive position is selected. This is called **the line of resistance**, and should be so located that an advancing enemy will be held in check beyond effective rifle range in case of a small force, artillery range in case of a large force, of the main body until the latter can deploy. The reserve is stationed at some point in rear of this line, where it can be moved quickly to reinforce any point as needed. The line of resistance is divided into sections, the limits of each of which are clearly defined. A support is assigned to each section, which are numbered from right to left, and occupies a position on or near the line, having special regard to covering avenues of approach. The position occupied should always be intrenched. The reserve and supports proceed to their respective positions by the shortest routes, providing for their own protection by sending out covering detachments.

Generally speaking, about one-half the Infantry of the advance guard should be in the supports. As each support arrives at its position it sends out observation groups, varying in size from four men to a platoon, to watch the country in the direction of the enemy. These groups are called outguards. For convenience they are classified as pickets, sentry squads, and cossack posts, and should be sufficient in number to cover the front of the section occupied by the support and connect with the neighboring supports. The horses of the outguards may be left at the position of the support.

A picket is a group consisting of one or two sections, ordinarily not exceeding half a company, posted in the line of outposts to cover a given sector. It furnishes patrols and one or more sentinels, sentry squads, or cossack posts for observation. Pickets are placed at the more important points in the line of outguards, such as road forks. The strength of each depends upon the number of small groups required to observe properly its sector.

A sentry squad is a squad (eight men) posted in observation at an indicated point. It posts a double sentinel in observation, the remaining men resting near by and furnishing the reliefs of sentinels. In some cases it may be required to furnish a patrol.

A cossack post consists of four men. It is an observation group similar to a sentry squad, but employs a single sentinel.

As a rule not more than one-third of the support should be on outguard duty. As soon as they are sent out to their positions the support commander selects a defensive position on the line of resistance; gives instruction for intrenching same; establishes a sentinel to watch for and transmit signals from outguards; sends out patrols to reconnoiter the country to the front of his section and, if on the flank of the line, the flank; and then proceeds to make a careful reconnoissance of the section assigned him, rectifying the position of outguards if necessary, seeing that they understand their instructions in case of attack or when strangers approach their posts, and pointing out their lines of retreat in case they are compelled to fall back on the support.

When the outguards are established, the members of the support may stack arms and remove equipment except cartridge belts. Part of the horses may be unsaddled and groomed and fed at one time. All girths should be loosened. No fires will be built or smoking permitted unless specially authorized, or no loud talking or other noise. All patrolling to the front will be done, as a rule, from the support. The support commander should locate the position of the adjacent supports and make arrangements with the commanders for the joint defense of the line of resistance. At nights all roads and trails should be carefully covered and the country to the front and between adjacent outguards well patrolled. Horses should, as far as possible, be permitted to rest, unsaddled, at night.

The line occupied by the outguards is called the line of observation. Outguards move to their positions providing for their own protection and so as to conceal the movement from the enemy. These positions are intrenched and are numbered from right to left in each support.

The duties of the outguard are to observe the enemy, to guard the outpost from surprise, and to make a preliminary resistance to the enemy's advance. The strength of the outguard will vary according to its object. When an important road, which at night will afford a line of advance, or a bridge is to be covered, or when several posts are established from an outguard it should be of considerable strength, a section or a platoon. When mere observation and alarm are all that is required four men will suffice. One corporal and seven privates are a good number to use as an outguard; this will allow one double sentry post of three reliefs and one man in addition to the commander, who may be used for messenger service. The outguard should be carefully concealed.

The utmost quiet should be observed, and there should be no cooking or smoking. The intervals between outguards will depend upon the situation and the terrain. The line of observation is not necessarily continuous, but all avenues of approach must be carefully guarded. The distance of the outguard from the support likewise is governed by the terrain, but in general may be said to be from 300 to 400 yards. In thick country or at night outguards patrol along the line of observation between posts. Communication between outguards and the support is by signal and messenger, in special cases by wire. Members of the outguard retain possession of their weapons and do not remove their equipment.

Sentinels from the outguard are posted so as to avoid observation, but so that they may have a clear lookout and be able to see, if possible, by day, the sentinels of the adjacent outguards. Double sentinels are always posted near enough to each other to communicate easily in ordinary voice. Sentinels are generally on post two hours out of six. For every sentinel and every patrol there should be three reliefs, and outguards should be of a strength sufficient to allow this. The position of a sentinel should be selected with reference to observation.

It may be advantageous to place a sentinel in a tree. Sentinels furnished by cossack posts or sentry squads are kept near their group. Those furnished by their pickets may be kept as far as 100 yards away.

Reliefs, visiting patrols, and inspecting officers approach sentinels from the rear.

A sentinel on the line of observation should always have the following instructions: The names of villages, streams, and prominent features in sight and where the roads lead. The number (if any) of his post, and the number of his and of the adjoining outguards; the position of the support; the line of retreat to be followed if the outguard is compelled to fall back; the position of advance detachments and whether friendly patrols are operating in front; to watch to the front and flanks without intermission and devote special attention to unusual or suspicious occurrences; if he sees indications of the enemy, to at once notify his immediate superior; in case of imminent danger, or when an attack is made, to give the alarm by firing rapidly; by day to pass in or out officers, noncommissioned officers, and detachments recognized as part of the outposts, and officers known to have authority to do so; to detain all others and notify the outguard commander; at night, when persons approach his post, to come to a ready, halt them, and notify the outguard commander; the latter challenges, ascertains their identity, and acts accordingly. When individuals fail to halt, or otherwise disobey, to fire upon them after a second warning, or sooner if they attempt to attack or escape; to require deserters to lay down their arms, and remain until a patrol is sent out to bring them in; to order deserters pursued by the enemy to drop their arms and to give an alarm; if they fail to obey they are fired upon; to require bearers of flags of truce and their escorts to halt and to face outward; to permit them to hold no conversation and to see that they are then blindfolded and disposed of in accordance with instructions from the support commander; if they fail to obey to fire upon them; at night, to remain practically stationary, moving about for purposes of observation only; not to sit or lie down unless authorized to do so; in the daytime, to make use of natural or artificial cover and assume such positions as to give him the best field

of view; to inform passing patrols of what he has seen; to carry his weapon habitually loaded and locked and at will.

Outpost patrols are divided into those which operate beyond the lines and those whose duty lies principally within the lines. The former, called reconnoitering patrols, scout in the direction of the enemy; the latter, called visiting patrols, maintain communication between the parts of the outpost and supervise the performance of duty on the line of observation. Reconnoissance should be continuous. Though scouts and detachments of cavalry remain in contact with the enemy, or at least push forward to a considerable distance, more detailed reconnoissance by infantry patrols in the foreground must not be neglected. Reconnoitering patrols are composed of at least two men and a skillful leader, who, in important cases, would be an officer. They obtain information, ascertain the presence of the enemy, or discover his approach. All patrols, when they cross the line of observation, inform the nearest sentinel of the direction in which they are to advance; on their return they similarly report what they have seen of the enemy; signals are agreed upon so that they can be recognized when returning. Any ground near the line of observation which might afford cover for troops, or for scouts or spies, and the approach to which can not be observed by sentinels, is searched frequently by patrols. Definite information concerning the enemy is reported at once. Patrols fire only in self-defense or to give the alarm. Supports on the flank of an outpost position patrol the country on the exposed flank. Visiting patrols and reliefs should not march in the open and thereby expose the position of sentinels.

During a march in the vicinity of the enemy when halts are made, special measures for protection are taken. When the halt is for a short period, less than half an hour, the advance party and support remain at ease, the point and flankers move to positions from which they can obtain a good lookout, and additional patrols may be sent out from advance parties and supports. Where the halt is for a period exceeding half an hour a **march outpost** should be formed.

With an advance guard consisting of a squadron, one troop as support and three as reserve, a suggested form of march outpost might be formed as follows: The leading pla-

toon moving to the front at a trot for 400 yards would be outguard No. 2; the next platoon in rear, moving to the right at a trot for about 600 to 800 yards would be outguard No. 1; the next platoon, moving to the left in the same manner would be outguard No. 3; and the 4th platoon would be the support of the march outpost. The reserve (3 troops) would be the reserve of the march outpost. On signal being given to resume the march, the various units would close in at a trot or gallop, and as soon as the support had assembled the march would be resumed.

Section 8. Rifle trenches.

Soldiers should remember that only by acting vigorously on the offensive can an army hope to gain the victory. The defensive may delay or stop the enemy, but it can never destroy him. "Troops dig because they are forced to halt; they do not halt to dig."

Trenches will frequently be constructed, without being used, and soldiers must expect this as a feature of campaigning and accept cheerfully what at times may appear as unnecessary labor.

When intrenching under fire cover is first secured in the lying position, each man scooping out a depression for his body and throwing the earth to the front. In this position no excavation can be conveniently made for the legs, but if time permits the original excavation is enlarged and deepened until it is possible to assume a sitting position, with the legs crossed and the shoulder to the parapet. In such a position a man presents a smaller target to shrapnel bullets than in the lying trench and can fire more comfortably and with less exposure than in the kneeling trench. From the sitting position the excavation may be continued until a standing trench is secured.

The accompanying plate shows some of the more common forms of trenches in profile. Figure 1 is the simplest form of standing trench. Figure 2 shows the same trench deepened in rear, so as to allow men to walk along in the rear (deeper) portion of the trench without exposing their heads above the parapet. Figure 3 shows a cover and firing trench, with a chamber in which men can find shelter when under heavy

artillery fire. When the excavated earth is easily removed figure 4 shows a good profile. The enemy's infantry, as well as his artillery, will generally have great difficulty in seeing this type of trench.

The mound or bank of earth thrown up for shelter in front of a trench is called the **parapet.** It should be at least 30 inches thick on top and the front should slope gradually, as shown in the plate, so that shells will tend to glance from it, rather than penetrate and explode. The top should be covered with sod, grass, or leaves, so as to hide the newly turned earth, which could be easily seen and aimed at by the enemy. There should be no rocks, loose stones, or pebbles on top, which might be struck by the bullets, splintering and flying, thus adding greatly to the number of dangerous projectiles, and often deflecting bullets downward into the trench. A stone wall is a very dangerous thing to be behind in a fight.

The portion of the ground in rear of the parapet and between the parapet and the trench not covered by the parapet is to rest the elbows on when firing, the rifle being rested on top of the parapet.

To obtain head cover in a trench fill a gunny sack or other bag with sand or soil and place it on top of the parapet, aiming around the right-hand side of it, or dig a small lateral trench in the parapet large enough to hold the rifle. Roof it over with boards, small logs, or brush, and heap dirt on top, aiming through the small trench or resulting loophole.

Figure 5 shows the plan of a section of a rifle trench.[1] Between the portions occupied by each squad there is often placed a mound of earth as high as the top of the parapet and projecting back into the trench. This is called a **traverse** and protects the occupants of the trench from fire from a flank. Bullets from this direction hit a traverse, instead of flying down into the trench and wounding several men.

Trenches are seldom continuous, but are made in sections placed at the most advantageous points, as shown in figure 6. A company or battalion may occupy a single section. The firing trenches have cover trenches in rear of them, where the

[1] The traverse should be at least 6 feet wide instead of 3 feet, as shown in figure 5.

supports can rest undisturbed by the hostile fire until they are needed in the firing trench to repel a serious assault or to take part in a counter attack. Passages consisting of deep communicating trenches facilitate passage from the cover trenches to the firing trenches when under fire. These communicating trenches are usually zigzag or traversed to prevent their being swept by hostile fire.

When troops are likely to remain in trenches for a considerable time drainage should be arranged for, and latrines and dressing stations should be constructed in trenches. Water should be brought into the trenches and holes excavated in the front wall of the trench for extra ammunition.

In digging trenches men usually work in reliefs, one relief digging while the others rest, the proportion of shovelers to pickmen being about 3 to 1. If a plow can be obtained to turn the sod, it will greatly facilitate the initial work of digging.

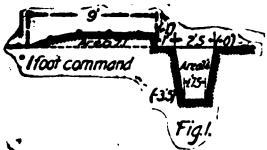


Fig.1.

Fig.2.

Plate V

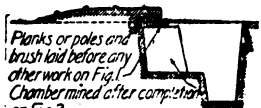


Fig.3.

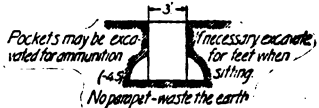


Fig.4.

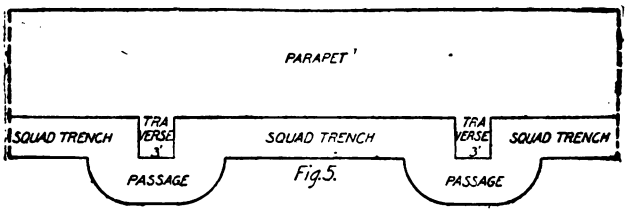
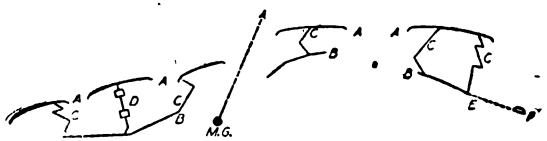


Fig.5.



Possible arrangement of 2 Bns. of Inf. intrenched (Regimental Reserve of 1 Bn. not shown)

A Firing trenches.

B Cover trenches.

C Communicating trench: D same traversed; E communicating way.

F Closed supporting point for flank protection

M.G. Possible position for machine guns, concealed from front.

Fig.6.

CHAPTER VII.

MARCHING AND CAMPING.

Section 1. Breaking camp and preparation for a march.

THE EVENING BEFORE THE MARCH.

When a command learns that it is to make a march on the following day, presumably starting early in the morning, certain details should be attended to the evening before.

All men should fill their canteens, as there will probably be no time for this in the morning.

The mess sergeant should find out whether lunch or the reserve ration will be carried on the march, and should attend to these details in the evening in order that the issue can be made promptly in the morning.

The stable sergeant will have the stable detail fill all of the feed bags for the morning's feed, and the section leaders will see that each of their men has filled his grain bag with the noon feed for the following day.

The commander of the guard should be given a memorandum as to what time to awaken the cooks and where their tent is. The member of the guard who does this should awaken them without noise, so as not to disturb the rest of the remainder of the command.

The cooks should be instructed as to what time breakfast is to be served and what time to awaken the first sergeant.

The cooks or cooks' police must cut and split all firewood for the morning before 9 p. m. There must be no chopping, talking, or rattling of pans before reveille which will disturb the rest of the command. This applies to every morning in camp.

THE MORNING OF THE MARCH.

Cooks arise when called by the guard and start the preparation of breakfast without noise. The first sergeant and stable sergeant are usually awakened by one of the cooks about half an hour before reveille in order that they may complete their toilets and breakfast early and be able to devote all their time to supervising the details of the morning's work. If the officers desire to be awakened before reveille they will notify the first sergeant accordingly.

At first call the men turn out, perform their toilets, strike their shelter tents (unless it has been directed to await the sounding of the general for this), and make up their packs. The stable detail feeds the horses.

At the sounding of assembly immediately after reveille each man must be in his proper place in ranks, except the kitchen and stable details who are actually at work. This assembly is under arms. The first sergeant starts to call the roll or commands "Report" at the last note of assembly. Arms are stacked before the troop is dimissed.

Breakfast is served to the troop immediately after roll call. Immediately after breakfast each man will wash his mess kit in the hot water provided for that purpose at the kitchen and will at once pack the mess kit in his saddlebags.

The cooks will provide hot water for washing mess kits at the same time that breakfast is served.

Immediately after breakfast the troop proceeds to the work of breaking camp and packing in accordance with a prearranged system similar to the following:

One section assists the cooks in packing the kitchen.

One section strikes and folds the officers' tents and brings them to the kitchen.

One section fills in the sink. The sink should not be filled in earlier than is absolutely necessary.

The stable detail police the picket line and vicinity.

One section polices the camp within the company police limits.

One section is available for possible details from regimental headquarters.

Officers and first sergeant supervise the work.

A permanent assignment of squads to these duties lightens the labor and decreases the time necessary for breaking camp.

Boots and saddles should not be sounded before all of the above work has been completed, and without confusion. Don't begin the day by nagging your men, thereby making them "grouchy" during the march.

Always be most careful to groom all parts of your horse that will be touched by the equipment before you begin to saddle up.

Men should not start from camp thirsty, but should drink all the water they want immediately after breakfast. All canteens should be filled before marching.

Section 2. Marches, camps.

GENERAL PROVISIONS.

977. The successful conduct of a march is one of the surest tests of the ability and good judgment, not only of the commander, but of all subordinate officers as well. Certain general principles and some exact rules are laid down to fit the case of a normal march, but tactical considerations as well as the condition of roads and weather, the necessary forage, water and shelter, sanitation, and other circumstances render a march of any considerable body of mounted troops one requiring the most unremitting attention to details on the part of the commander and his subordinates. A successful Cavalry march whether in peace or war is one that places the men and horses at the time and place needed in the best possible condition for the service required. Failure of mounted troops to successfully carry out a mission is due as a rule to exhaustion or injuries to the horses rather than to the men.

The training of officers of all grades must be such that solicitude for the condition of horses on the march is second nature; constant effort should be made, however severe the work, to stimulate the pride of the trooper in having and in keeping his mount in fit condition; if such stimulus is ineffective then the remedy, if the trooper is at fault, lies in other directions. Under favorable conditions field service

offers the best opportunity for conditioning the horses and hardening the men.

978. Preparation: Responsibility for the timely ordering of necessary preparations preliminary to leaving a permanent camp or station rests with the commander. All probable needs of the command for the service on which ordered should be anticipated, instructions prepared, verified, and issued once in complete form, and no departure therefrom permitted. The **march order** proper for the actual movement of the command conforms to the requirements of Field Service Regulations. **An order or memorandum of service calls** will be issued and distributed in ample time the night before beginning a march stating the hour for reville, stables, and breakfast and such other duties as can reasonably be anticipated.

Except on account of imperative military reasons, Cavalry should not leave camp for an hour or more after daylight. If grazing is depended upon, this is especially necessary, since horses as a rule graze more freely in the early morning when rested. Ample time should be allowed after reville for grooming and feeding and thereafter for the men to breakfast. All stable duties should be done quietly and without hurry or confusion under the immediate supervision of troop and squadron commanders. In each troop a man is detailed to walk the picket line while grain is being fed, to look out for the horses generally and to take off the feed or the nose bag of a horse as soon as he has finished feeding.

The signals for striking tents (**the general**), for policing, saddling, and beginning the march should be ordered personally by the commanding officer and only when the duties pertaining to the previous signal are completed.

979. The march, its length and rate: The average daily march of a Cavalry column of the size of a squadron, or larger, is about 25 miles when horses are in condition; when starting on long-distance marches the rate per day for the first few days should be less than 20 miles and gradually increased. These rules may necessarily be modified, even when horses are not in fit condition, by reason of emergencies, character of roads or weather, proximity of water, grazing, etc., but, with these exceptions, the question of the **length** of the daily march is one of good judgment and experience on the part of the commander. The **gait** and **pace** of the daily march are in-

fluenced by both the time the horse is to carry the load and the distance to be covered. The quicker a march can be completed without forcing the less the fatigue to both horse and man. Where the footing is good, the road level, and other considerations do not hamper the column, after the first or a subsequent halt, may advance first by leading dismounted, then mount and walk, then trot, a short gallop (exceptional), then the trot, followed by the walk to the next halt. No gait is to be maintained continuously long enough to weary either horse or man, neither must it be changed too frequently in long columns; but whatever pace or gait is taken it should conform to the standards (par. 279). The officer setting the pace should occasionally drop back to observe its effect on the column, and veterinarians, if present, should be habitually utilized for this purpose.

The walk, if the footing is good, should be at the rate of 4 miles per hour, exclusive of halts; the trot at 8 miles per hour, so as to facilitate posting; the gallop, a very exceptional gait even for small commands, should be not faster than the maneuvering gallop (par. 236), and its practicability will depend upon the training and condition of the horses, since on long marches, unless accustomed to this gait with packed saddles, the horses will soon break down.

Very rarely, however, will the conditions allow the regular arrangement of gaits indicated above. Rolling country, with ascents and descents, stretches of hard or stony road or of mud, dust, or sand, crossings of streams, etc., will ordinarily impose corresponding changes of gait or pace on each of the small elements of the column as it reaches them. To provide for this the troops in route column, when so directed, take greater distances than prescribed in order to allow for closing up at checks.

The commander must give this matter unremitting attention, since normal route-order distances in column frequently entail discomfort to the men and sometimes injuries to the horses which might have been avoided.

Unless under exceptional circumstances, the commander of a marching column will authorize each troop commander to so regulate the gait and pace of his troop as to conform to that next in front, the gait and pace of the leading troop being regulated by the commander himself. This results in each

troop changing to the trot, walk, leading dismounted, etc., at the same place at which the leading troop did, and although regulation distances are frequently exceeded, the tendency on all stretches of good road is to close on the leading troop of the column. With care this method of marching should result in enabling each troop in the column to move with almost the same regularity and freedom from checks as though it were in the lead.

The fast rate of march that can be expected of small detachments and of single riders can not be demanded of a long Cavalry column, and as the command increases in size the rate of march will decrease. The regulation gaits being, at the walk, 4 miles, the trot, 8 miles, Cavalry should be able to make, including halts, 5 miles per hour or better. This rate can be maintained for daily marches of 25 miles under ordinary conditions for a week at a time, after which a day of rest should be allowed before continuing the march.

980. Formations: The habitual formation for marches is route order in column of fours (par. 754). When the roads are unsuitable or the command is small, column of twos or troopers is permissible. To economize road space in large commands **double column** or parallel columns should be used if practicable. Squadrons in regiment and troops in squadrons alternate in leading, the rule being that the one in front one day automatically follows in rear the next day.

981. Halts: The first half hour of a march should be made at a walk and the first halt of 10 or 15 minutes toward the end of the first hour after starting; it should, if possible, be preceded by a short trot in order to make apparent any faulty adjustment of equipment. This halt gives an opportunity for the horses to stale and for the troopers to attend to the calls of nature, to tighten girths, and to adjust saddles, equipment, and clothing.

Other halts of 5 to 10 minutes should be made at hourly intervals, and, if the march is to be prolonged into the afternoon, a longer halt should be made at noon, when girths are loosened, bridles removed, horses fed, and the men eat their lunches.

An invariable rule on the march and in camp is to have all troopers dismount promptly on halting; in other words, never to permit a man to sit a moment in the saddle while his horse

is standing still, and under no circumstances to lounge in the saddle.

982. Watering: On the march horses should be watered whenever opportunity occurs, conforming as far as practicable to the rule of watering before feeding and of removing the bit when by so doing the horse can drink more freely, as when the stream or watering place is shallow. Public watering troughs should ordinarily be avoided on account of danger from infection. The use of buckets or of portable, collapsible canvas watering troughs (articles of issue) will often make watering places otherwise insufficient thoroughly satisfactory. On the march and in camp watering is always done under supervision of an officer.

983. Feeding: In time of peace when a regular supply of grain and long forage can be counted on, effort should be made to follow, as far as practicable, the routine to which horses have been accustomed in garrison. In time of war regularity of supply of forage, and especially of the long forage, can not be expected, and officers must neglect no opportunity of anticipating the needs of their animals when passing grain fields, pastures, or stacks of hay and other fodder. A supply for the night can often be gathered and carried along on the wagons or it may be tied up compactly with the lariat and carried on the horse.

The trooper with habitual solicitude for his mount will, if permitted, be prompt to remove the bits to let his horse graze (facing the wind in hot weather) at every delay or check, and he will miss no chance to pick up an extra feed of grain.

984. Camps (*see also* **Care of Troops, F. S. R.**): The ground being suitable, a troop encamps in line, with first sergeant's cook and officers' tents on one flank, the men's sink on the other, and with picket line 15 yards in front of and parallel to the men's tents, the open ends of the tents toward the picket line. A squadron or regiment encamps in column of troops as above, but with picket lines on the flank of the column on the side opposite the cook and officers' tents, each in prolongation of its own company street. Intervals and distances should approximate those of the normal semipermanent camps (F. S. R.), if space is available. For a shelter-tent camp in column of troops with picket lines stretched between the rows of tents the guidons which mark first ser-

A night march, being slow and fatiguing to horses and men, is seldom undertaken unless as a forced march to seize a position or to surprise an enemy by attacking him at dawn. In a forced march frequently the gait, if the footing is favorable, and always the number of hours in the saddle, are increased. Under favorable conditions a rate of 50 miles in 24 hours for three or four days can be maintained. During such a march, in addition to the usual hourly halts, a halt of 2 hours is made toward the end of the first half of each day's march, during which bits are removed, horses unsaddled, watered, fed, and their legs hand rubbed; the rate should be about 5 miles an hour, exclusive of halts.

Under very favorable conditions a single march of 100 miles can be made in from 24 to 30 hours. During a march of this character, in addition to the usual hourly halts, halts of 2 hours are made toward the end of the first and second thirds of the march, during which bits are removed, the horses unsaddled, watered, fed, and their legs hand rubbed; the rate of march should be from 5 to 6 miles an hour, exclusive of halts.

CHAPTER VIII.

TARGET PRACTICE.

Section 1. Preliminary training in marksmanship.

Effective rifle fire is generally what counts most in battle. To have effective rifle fire, the men on the firing line must be able to HIT what they are ordered to shoot at. There is no man who can not be taught how to shoot. It is not necessary or even desirable to begin instruction by firing on a rifle range. A perfectly green recruit who has never fired a rifle may be made into a good shot by a little instruction and some preliminary drills and exercises.

Before a man goes on the range to fire it is absolutely necessary that he should know—

1. How to set the rear sight.
2. How to sight or aim.
3. How to squeeze the trigger.
4. How to hold the rifle in all positions.

If he does not know these things it is worse than useless for him to fire. He will not improve; the more he shoots the worse he will shoot, and it will become more difficult to teach him.

Section 2. Sight adjustment.

Men must be able to adjust their sights correctly and quickly. An error in adjustment so small that one can scarcely see it on the sight leaf is sufficient to cause a miss at an enemy at 500 yards and over.

Notice your rear sight. When the leaf is laid down the **battle sight** appears on top. This sight is set for 547 yards and is not adjustable. When the leaf is raised four sights come into view. The extreme range sight for 2,850 yards at the top of

the leaf is seldom used. The open sight at the upper edge of the drift slide is adjustable from 1,400 to 2,750 yards. To set it the upper edge of the slide is made to correspond with the range reading on the leaf, and the slide is then clamped with the slide screw. This sight also is seldom used. The open sight at the bottom of the triangular opening in the drift slide is adjustable from 100 to 2,450 yards. To set it the index line at the lower corners of the triangle is set opposite the range graduation on the leaf and the slide clamped. This and the peep sight just below it are the sights most commonly used. To set the peep sight, the index lines on either side of the peep-hole are set opposite the range desired and the slide clamped.

Notice the scales for the various ranges on either side of the face of the leaf. The odd-numbered hundreds of yards are on the right and the even on the left. **The line below the number is the index line for that range.** Thus to set the sight for 500 yards the index line of the slide is brought in exact line with the line on the leaf below the figure 5 and the slide clamped. To set for 550 yards the index lines of the slide are set halfway between the index lines on the leaf below the figure 5 on the right side and the figure 6 on the left side. Look at your sight carefully when setting it and take great pains to get it exact. An error in setting the width of one of the lines on the leaf will cause an error of about 8 inches in where your bullet will strike at 500 yards.

The **wind gauge** is adjusted by means of the windage screw at the right front end of the base of the sight. Each graduation on the wind-gauge scale is called a "point." For convenience in adjusting the line of each third point on the scale is longer than the others. If you turn the windage screw so that the movable base moves to the right, you are taking right windage, which will cause your rifle to shoot more to the right.

It is seldom that a rifle will shoot correctly to the point aimed at at a given range with the sights adjusted exactly to the scale graduations for that range. If your sight is not correctly adjusted for your shooting and you wish to move it slightly to make it correct, remember to **move it in the direction you wish your shot to hit.** If you wish to shoot higher raise your sight. If to the right, move the wind gauge to the right. Always move your sight the correct amount in accordance with the following table:

Section 3. Table of sight corrections.

Showing to what extent the point of impact is moved by a change of 25 yards in elevation or 1 point in windage.

Range.	Correction by a change in elevation of 25 yards.	Correction by a change in windage of 1 point.
Yards.	*Inches.*	*Inches.*
100	0.72	4
200	1.62	8
300	2.79	12
400	4.29	16
500	6.22	20
600	8.59	24
800	15.43	32
1,000	25.08	40

An easy rule to remember the windage correction by is: "A change of 1 point of wind changes the point of impact 4 inches for every 100 yards of range."

Copy this table and take it to the range with you.

Example of sight adjustment: Suppose you are firing at 500 yards. The first two or three shots show you that your shots are hitting about a foot below and a foot to the right of the center of the bull's-eye. From the above table you will see that if you will raise your sight 50 yards and move the wind gauge half a point to the left the rifle will be sighted so that if you aim correctly the bullets will hit well inside the bull's-eye.

Section 4. Aiming.

Open sight: Always align your sights with the front sight squarely in the middle of the "U" or notch of the rear sight, and the top of the front sight even with the upper corners of the "U." (See fig. 1.) All the sights on the rifle except the peep sight are open sights.

Peep sight: Always center the tip of the front sight in the center of the peephole when aiming with this sight. (See fig. 2.)

Always aim below the bull's-eye. Never let your front sight appear to touch the bull's eye in aiming. Try to see the same amount of white target between the top of the front sight and the bottom of the bull's-eye each time. The eye must be focused on the bull's-eye or mark and not on the front or rear sight.

Look at figures 1 and 2 until your eye retains the memory of them, then try to duplicate the picture every time you aim. Aim consistently, always the same. Never change your aim; change your sight adjustment if your shots are not hitting in the right place. Many shots have been wasted when the point

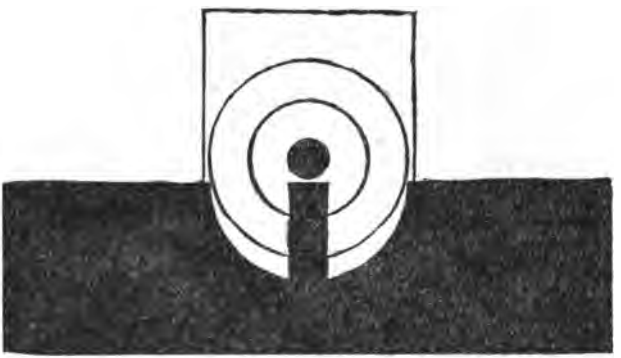


FIGURE 1.

of aim has been moved to what the firer thought was the necessary change on the target, instead of changing the sights according to the table on page 191.

Section 5. Battle sight.

The battle sight is the open sight seen when the leaf is laid flat. It is adjusted for a range of 547 yards. It is intended to be used in battle when you get nearer to the enemy than 600 yards. Always aim at the belt of a standing enemy, or just

below him if he is kneeling, sitting, or lying. On the target range this sight is used for rapid fire. With it the rifle shoots about 2 feet high at ranges between 200 and 400 yards, so you must aim below the figure on the target "D." Find out in your instruction practice just how much you must aim below to hit the figure.

Section 6. Trigger squeeze.

Use the first joint of the forefinger to squeeze the trigger. It is the most sensitive and best controlled portion of the body.

FIGURE 2.

As you place the rifle to your shoulder, squeeze the trigger so as to pull it back about one-eighth of an inch, thus taking up the safety portion or slack of the pull. Then contract the trigger finger gradually, slowly and steadily increasing the pressure on the trigger while the aim is being perfected. Continue the gradual increase of pressure so that when the aim has become exact the additional pressure required to release the point of the sear can be given almost insensibly and with-

out causing any deflection of the rifle. Put absolutely all your mind and will power into holding the rifle steady and squeezing the trigger off without disturbing the aim. Practice squeezing the trigger in this way every time you have your rifle in your hand until you can surely and quickly do it without a suspicion of a jerk.

By practice the soldier becomes familiar with the trigger squeeze of his rifle, and knowing this he is able to judge at any time, within limits, what additional pressure is required for its discharge. By constant repetition of this exercise he should be able finally to squeeze the trigger to a certain point beyond which the slightest movement will release the sear. Having squeezed the trigger to this point the aim is corrected, and when true the additional pressure is applied and the discharge follows and the bullet flies true to the mark.

Section 7. Firing positions.

When in ranks at close order the positions are those described in the Cavalry Drill Regulations. When in extended order or when firing alone these positions may be modified somewhat to better suit the individual. The following remarks on the various positions are offered as suggestions whereby steady positions may be learned by the soldier.

Standing position: Face the target, then execute right half face. Plant the feet about 12 inches apart. As you raise the rifle to the shoulder lean very slightly backward just enough to preserve the perfect balance on both feet which the raising of the rifle has somewhat disturbed. Do not lean far back and do not lean forward at all. If your body is out of balance, it will be under strain and you will tremble. The right elbow should be at about the height of the shoulder. The left hand should grasp well around the stock and handguard in front of the rear sight, and the left elbow should be almost directly under the rifle. The right hand should do more than half the work of holding the rifle up and against the shoulder, the left hand only steadying and guiding the piece. Do not try to meet the recoil; let the whole body move back with it. Do not be afraid to press the jaw hard against the stock; this

steadies the position, and the head goes back with the recoil and insures that your face is not hurt.

Kneeling position: Assume the position very much as described in the Cavalry Drill Regulations. Sit on the right heel. The right knee should point directly to the right; that is, along the firing line. The point of the left elbow should rest over the left knee. There is a flat place under the elbow which fits a flat place on the knee and makes a solid rest. Lean the body well forward. This position is uncomfortable until practiced, when it quickly ceases to be uncomfortable.

Sitting position: Sit down half faced to the right, feet from 6 to 8 inches apart, knees bent, right knee slightly higher than the left, left leg pointed toward the target. Rest both elbows on the knees, hands grasping the piece the same as in the prone position. This is a very steady position, particularly if holes can be found or made in the ground for the heels.

Prone position and use of the gun sling: To adjust the sling for firing, unhook the straight strap of the sling and let it out as far as it will go. Adjust the loop so that when stretched along the bottom of the stock its rear end (bight) comes about opposite the comb of the stock. A small man needs a longer loop than a tall man. Lie down facing at an angle of about 60° to the right of the direction of the target. Spread the legs as wide apart as they will go with comfort. Thrust the left arm through between the rifle and the sling, and then back through the loop of the sling, securing the loop, by means of the keeper, around the upper left arm as high up as it will go. Pass the hand under and then over the sling from the left side, and grasp the stock and handguard just in rear of the lower band. Raise the right elbow off the ground, rolling slightly over on the left side. Place the butt to the shoulder and roll back into position, clamping the rifle hard and steady in the firing position. The rifle should rest deep down in the palm of the left hand with fingers almost around the handguard. Shift the left palm a little to the right or left until the rifle stands perfectly upright (no cant) without effort. The left elbow should rest on the ground directly under the rifle, and right elbow on the ground about 5 inches to the right of a point directly under the stock. In this position the loop of the sling, starting at the lower band, passes to the right of the left wrist,

and thence around the left upper arm. The loop should be so tight that about 50 pounds tension is placed on it when the position is assumed. This position is uncomfortable until practiced, when it quickly ceases to be uncomfortable. It will be steadier if small holes can be found or dug in the ground for the elbows. In this position the sling binds the left forearm to the rifle and to the ground so that it forms a dead rest for the rifle, with a universal joint, the wrist, at its upper end. Also the rifle is so bound to the shoulder that the recoil is not felt at all. This is the steadiest of all firing positions.

The gun sling can also be used in this manner with advantage in the other positions.

Section 8. Calling the shot.

It is evident that the sights should be so adjusted at each range that the rifle will hit where you aim. In order to determine that the sights are so adjusted, it is necessary that you shall know each time just where you were aiming on the target at the instant your rifle was discharged. If you know this and your rifle hits this point, your rifle is correctly sighted. If your shot does not hit near this point, you should change your sight adjustment in accordance with the table of sight corrections on page 191.

No man can hold absolutely steady. The rifle trembles slightly, and the sights seem to wabble and move over the target. You try to squeeze off the last ounce of the trigger squeeze just as the sights move to the desired alignment under the bull's-eye. At this instant, just before the recoil blots out a view of the sights and target, you should catch with your eye a picture, as it were, of just where on the target your sights were aligned, and call to yourself or to the coach this point. This point is where your shot should strike if your sights are correctly adjusted and if you have squeezed the trigger without disturbing your aim. Until a man can call his shots he is not a good shot, for he can never tell if his rifle is sighted right or not, or if a certain shot is a good one or only the result of luck.

Section 9. Coordination.

Good marksmanship consists in learning thoroughly the details of—

Holding the rifle in the various positions.
Aiming.
Squeezing the trigger.
Calling the shot.
Adjusting the sights.

And when these have been mastered in detail then the coordination of them in the act of firing. This coordination consists in putting absolutely all of one's will power into an effort to hold the rifle steadily, especially in getting it to steady down when the aim is perfected; in getting the trigger squeezed off easily at the instant the rifle is steadiest and the aim perfected; in calling the shot at this instant; and if the shot does not hit near the point called, then in adjusting the sights the correct amount so that the rifle will be sighted to hit where you aim.

Section 10. Advice to riflemen.

Before going to the range clean the rifle carefully, removing every trace of oil from the bore. This can best be done with a rag saturated with gasoline. Put a light coat of oil on the bolt and cams. Blacken the front and rear sights with smoke from a burning candle or camphor or with liquid sight black.

Look through the bore and see that there is no obstruction in it.

Keep the rifle off the ground; the stock may absorb dampness, the sights may be injured, or the muzzle filled with dirt.

Watch your hold carefully and be sure to know where the line of sight is at discharge. It is only in this way that the habit of calling shots, which is essential to good shooting, can be acquired.

Study the conditions, adjust the sling, and set the sight before going to the firing point.

Look at the sight adjustment before each shot and see that it has not changed.

If sure of your hold and if the hit is not as called, determine and make FULL correction in elevation and windage to put the next shot in the bull's-eye.

Keep a written record of the weather conditions and the corresponding elevation and windage for each day's firing.

Less elevation will generally be required on hot days; on wet days; in a bright sunlight; with a 6 o'clock wind; or with a cold barrel.

More elevation will generally be required on cold days; on very dry days; with a 12 o'clock wind; with a hot barrel; in a dull or cloudy light.

The upper band should not be tight enough to bind the barrel.

Do not put a cartridge into the chamber until ready to fire. Do not place cartridges in the sun. They will get hot and shoot high.

Do not rub the eyes—especially the sighting eye.

In cold weather warm the trigger hand before shooting.

After shooting, clean the rifle carefully and then oil it to prevent rust.

Have a strong, clean cloth that will not tear and jam, properly cut to size, for use in cleaning.

Always clean the rifle from the breech, using a brass cleaning rod when available. An injury to the rifling at the muzzle causes the piece to shoot very irregularly.

Regular physical exercise, taken systematically, will cause a marked improvement in shooting.

Frequent practice of the "Position and aiming drills" and gallery practice are of the greatest help in preparing for shooting on the range.

Rapid firing: Success in rapid firing depends upon catching a quick and accurate aim, holding the piece firmly and evenly, and in squeezing the trigger without a jerk.

In order to give as much time as possible for aiming accurately, the soldier must practice taking position, loading with the clip, and working the bolt, so that no time will be lost in these operations. With constant practice all these movements may be made quickly and without false motions.

When the bolt handle is raised, it must be done with enough force to start the shell from the chamber; and when the bolt is pulled back it must be with sufficient force to throw the empty shell well away from the chamber and far enough to engage the next cartridge.

In loading, use force enough to load each cartridge with one motion.

The aim must be caught quickly, and, once caught, must be held and the trigger squeezed steadily. Rapid firing, as far as holding, aim, and squeezing the trigger are concerned, should be done with all the precision of slow fire. The gain in time should be in getting ready to fire, loading, and working the bolt.

Firing with rests: In order that the shooting may be uniform the piece should always be rested at the same point.

Section 11. The course in small-arms firing.

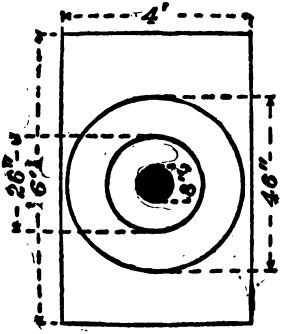
The course in small-arms firing consists of—

(*a*) Nomenclature and care of rifle.
(*b*) Sighting drills.
(*c*) Position and aiming drills.
(*d*) Deflection and elevation correction drills.
(*e*) Gallery practice.
(*f*) Estimating distance drill.
(*g*) Individual known-distance firing, instruction practice.
(*h*) Individual known-distance firing, record practice.
(*i*) Long-distance practice.
(*j*) Practice with telescopic sights.
(*k*) Instruction combat practice.
(*l*) Combat practice.
(*m*) Proficiency test.

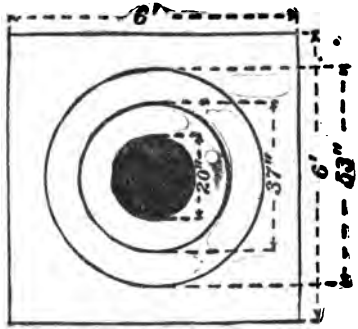
The regulations governing these are found in Small Arms Firing Manual, 1913. There should be several copies of this manual in every troop.

Section 12. Targets.

The accompanying plates show the details and size of the targets:



TARGET A.



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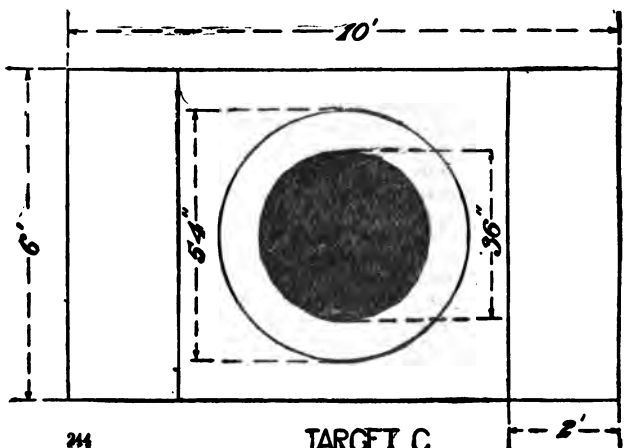
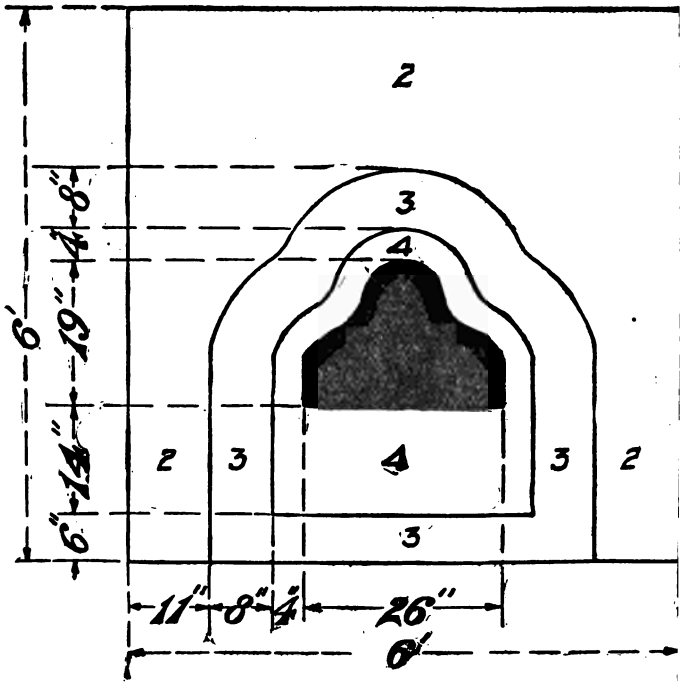


TARGET C



TARGET D.

Section 13. Pistol and revolver practice.[1]

135.[2] **Nomenclature and care of the weapon; handling and precautions against accidents.**—The soldier will first be taught

[1] Whenever in these regulations the word "pistol" appears the regulation applies with equal force to the revolver, if applicable to that weapon.

[2] The numbers refer to paragraphs in the Small Arms Firing Manual, 1913.

the nomenclature of those parts of the weapon necessary to an understanding of its action and use and the proper measures for its care and preservation. Ordnance pamphlets Nos. 1866 (description of the Colt's automatic pistol), 1919, and 1927 (descriptions of the Colt's revolver, calibers .38 and .45, respectively), contain full information on this subject, and are furnished to organizations armed with these weapons.

Careless handling of the pistol or revolver is the cause of many accidents and results in broken parts of the mechanism. The following rules will, if followed, prevent much trouble of this character:

(*a*) On taking the **pistol** from the armrack or holster, take out the magazine and see that it is empty before replacing it; then draw back the slide and make sure that the piece is unloaded. Observe the same precaution after practice on the target range, and again before replacing the pistol in the holster or in the armrack. When taking the **revolver** from the armrack or holster and before returning it to the same, open the cylinder and eject empty shells and cartridges. Before beginning a drill and upon arriving on the range observe the same precaution.

(*b*) Neither load nor unlock the weapon until the moment of firing, nor until a run in the mounted course is started.

(*c*) Always keep the pistol or revolver in the position of "Raise pistol" (par. 147, Cavalry Drill Regulations, 1916), except when it is pointed at the target. (The position of "Lower pistol" is authorized for mounted firing only.)

(*d*) Do not place the weapon on the ground where sand or earth can enter the bore or mechanism.

(*e*) Before loading the **pistol**, draw back the slide and look through the bore to see that it is free from obstruction. Before loading the **revolver**, open the cylinder and look through the bore to see that it is free from obstruction. When loading **the pistol** for target practice place five cartridges in the magazine and insert the magazine in the handle; draw back the slide and insert the first cartridge in the chamber and carefully lock the hammer.

In loading the **revolver** place five cartridges in the cylinder and let the hammer down on the **empty chamber.**

(*f*) Whenever the pistol is being **loaded** or **unloaded**, the muzzle **must be kept up.**

(*g*) Do not point the weapon in any direction where an accidental discharge might do harm.

(*h*) After loading do not cock the revolver or unlock the pistol until ready to fire.

(*i*) Keep the working parts properly lubricated.

136. Position, dismounted: Stand firmly on both feet, body perfectly balanced and erect and turned at such an angle as is most comfortable when the arm is extended toward the target; the feet far enough apart to insure firmness and steadiness of position (about 8 to 10 inches); weight of body borne equally upon both feet; right arm fully extended, left arm hanging naturally.

REMARKS.—The right arm may be slightly bent, although the difficulty of holding the pistol uniformly and of keeping it as well as the forearm in the same vertical plane makes this objectionable.

137. The grip: Grasp the stock as high as possible with the thumb and last three fingers, the forefinger alongside the trigger guard, the thumb extended along the stock. The barrel, hand, and forearm should be as nearly in one line as possible when the weapon is pointed toward the target. The grasp should not be so tight as to cause tremors of the hand or arm to be communicated to the weapon, but should be firm enough to avoid losing the grip when the recoil takes place.

REMARKS.—The force of recoil of the pistol or revolver is exerted in a line above the hand which grasps the stock. The lower the stock is grasped the greater will be the movement or "jump" of the muzzle caused by the recoil. This not only results in a severe strain upon the wrist but in loss of accuracy.

If the hand be placed so that the grasp is on one side of the stock, the recoil will cause a rotary movement of the weapon toward the opposite side.

The releasing of the sear causes a slight movement of the muzzle, generally to the left. The position of the thumb along the stock overcomes much of this movement. The soldier should be encouraged to practice this method of holding until it becomes natural.

To do uniform shooting the weapon must be held with exactly the same grip for each shot. Not only must the hand

grasp the stock at the same point for each shot, but the tension of the grip must be uniform.

138. (*a*) **The trigger squeeze:** The trigger must be squeezed in the same manner as in rifle firing. (See p. 193.) The pressure of the forefinger on the trigger should be steadily increased and should be straight back, not sideways. The pressure should continue to that point beyond which the slightest movement will release the sear. Then, when the aim is true, the additional pressure is applied and the pistol fired.

Only by much practice can the soldier become familiar with the trigger squeeze. This is essential to accurate shooting. It is the most important detail to master in pistol or revolver shooting.

(*b*) **Self-cocking action.**—The force required to squeeze the trigger of the revolver when the self-cocking device is used is considerably greater than with the single action. To accustom a soldier to the use of the self-cocking mechanism, and also to strengthen and develop the muscles of the hand, a few minutes' practice daily in holding the unloaded revolver on a mark and snapping it, using the self-cocking mechanism, is recommended. The use of the self-cocking device in firing is not recommended except in emergency. By practice in cocking the revolver the soldier can become sufficiently expert to fire very rapidly, using single action, while his accuracy will be greater than when using double action.

139. Aiming.—Except when delivering rapid or quick fire, the rear and front sights of the pistol are used in the same manner as the rifle sights. The normal sight is habitually used (see Pl. VI), and the line of sight is directed upon a point just under the bull's-eye at "6 o'clock." The front sight must be seen through the middle of the rear-sight notch, the top being on a line with the top of the notch. Care must be taken not to cant the pistol to either side.[1]

If the principles of aiming have not been taught, the soldier's instruction will begin with sighting drills as prescribed for the rifle so far as they may be applicable. The sighting

[1] The instructor should take cognizance of the fact that the proper aiming point is often affected by the personal and fixed peculiarities of the firer, and if unable to correct such abnormalities permit firer to direct sight at such point as promises effective results.

bar with open sight will be used to teach the normal sight and to demonstrate errors likely to be committed.

To construct a sighting rest for the pistol (see Pl. VI) take a piece of wood about 10 inches long, 1¼ inches wide, and ⅞ inch thick. Shape one end so that it will fit snugly in the handle of the pistol when the magazine has been removed. Screw or nail this stick to the top of a post or other object at such an angle that the pistol when placed on the stick will be approximately horizontal. A suitable sighting rest for the revolver may be easily improvised.

140. (*a*) **How to cock the pistol.**—The pistol should be cocked by the thumb of the right hand and with the least possible derangement of the grip. The forefinger should be clear of the trigger when cocking the pistol. Some men have difficulty at first in cocking the pistol with the right thumb. This can be overcome by a little practice. Jerking the pistol forward while holding the thumb on the hammer will not be permitted.

(*b*) **How to cock the revolver:** The revolver should be cocked by putting the thumb on the hammer at as nearly a right angle to the hammer as possible, and by the action of the thumb muscles alone bringing the hammer back to the position of full cock. Some men with large hands are able to cock the revolver with the thumb while holding it in the position of aim or raise pistol. Where the soldier's hand is small this can not be done, and in this case it assists the operation to give the revolver a slight tilt to the right and upward (to the right). Particular care should be taken that the forefinger is clear of the trigger or the cylinder will not revolve. Jerking the revolver forward while holding the thumb on the hammer will not be permitted.

141. Position and aiming drills, dismounted: For this instruction the squad will be formed with an interval of 1 pace between files. Black pasters to simulate bull's-eyes will be pasted opposite each man on the barrack or other wall, from which the squad is 10 paces distant.

The squad being formed as described above, the instructor gives the command: 1. **Raise,** 2. **Pistol** (par. 147, Cavalry Drill Regulations), and cautions, "**Position and aiming drill, dismounted.**" The men take the positions described in paragraph 136, except that the pistol is held at "Raise pistol."

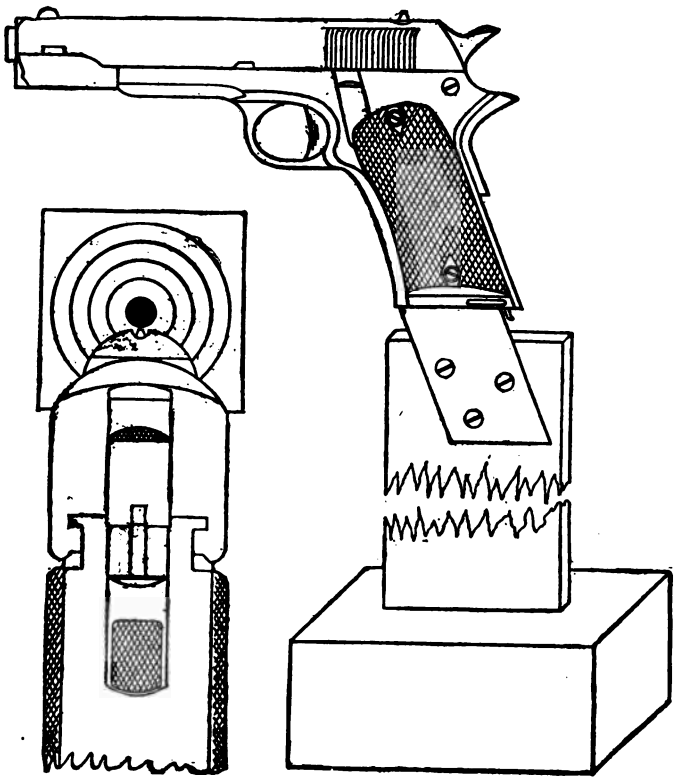


PLATE VI.

The instructor cautions, "Trigger squeeze exercise." At the command **READY**, cock the weapon as described in paragraph 140. At the command, 1. **Squad**, 2. **FIRE**, slowly extend the arm till it is nearly horizontal, the pistol directed at a point about 6 inches below the bull's-eye. At the same time put the forefinger inside the trigger guard and gradually "feel" the trigger. Inhale enough air to comfortably fill the lungs and gradually raise the piece until the line of sight is directed at the point of aim, i. e., just below the bull's-eye at 6 o'clock. While the sights are directed upon the mark, gradually increase the pressure on the trigger until it reaches that point where the slightest additional pressure will release the sear. Then, when the aim is true, the additional pressure necessary to fire the piece is given so smoothly as not to derange the alignment of the sights. The weapon will be held on the mark for an instant after the hammer falls and the soldier will observe what effect, if any, the squeezing of the trigger has had on his aim.

It is impossible to hold the arm perfectly still, but each time the line of sight is directed on the point of aim a slight additional pressure is applied to the trigger until the piece is finally discharged at one of the moments when the sights are correctly aligned upon the mark.

When the soldier has become proficient in taking the proper position, the trigger squeeze should be executed at will. The instructor prefaces the preparatory command by "At will" and give the command **HALT** at the conclusion of the exercise, when the soldier will return to the position of "Raise pistol."

At first this exercise should be executed with deliberation, but gradually the soldier will be taught to catch the aim quickly and to lose no time in beginning the trigger squeeze and bringing it to the point where the slightest additional pressure will release the sear.

REMARKS.—In service few opportunities will be offered for slow aimed fire with the pistol or revolver, although use will be made of the weapon under circumstances when accurate pointing and rapid manipulation are of vital importance.

In delivering a rapid fire, the soldier must keep his eyes fixed upon the mark and, after each shot, begin a steadily increasing pressure on the trigger, trying at the same time to get the sights as nearly on the mark as possible before the

hammer again falls. The great difficulty in quick firing with the pistol lies in the fact that when the front sight is brought upon the mark the rear sight is often found to be outside the line joining the eye with the mark. This tendency to hold the pistol obliquely can be overcome only by a uniform manner of holding and pointing. This uniformity is to be attained only by acquiring a grip which can be taken with certainty each time the weapon is fired. It is this circumstance which makes the position and aiming drills so important. The soldier should constantly practice pointing the pistol until he acquires the ability to direct it on the mark in the briefest interval of time and practically without the aid of sights.

The soldier then repeats the exercises with the pistol in the left hand, the left side being turned toward the target.

142. To draw and fire quickly—Snap shooting.—With the squad formed as described in paragraph 141 except that the pistol is in the holster and the flap, if any, buttoned, the instructor cautions "Quick-fire exercise." And gives the command, 1. **SQUAD**, 2. **FIRE.** At this command each soldier, keeping his eye on the target, quickly draws his pistol, unlocks it, thrusts it toward the target, squeezes the trigger, and at the instant the weapon is brought in line with the eye and the objective increases the pressure, releasing the sear. To enable the soldier to note errors in pointing, the weapon will be momentarily held in position after the fall of the hammer. Efforts at deliberate aiming in this exercise must be discouraged.

Remarks under paragraph 141 are specially applicable also to this type of fire. When the soldier has become proficient in the details of this exercise, it should be repeated at will; the instructor cautions, "At will; quick-fire exercise." The exercise should be practiced until the mind, the eye, and trigger finger act in unison.

To simulate this type of fire mounted, the instructor places the squad so that the simulated bull's-eyes are in turn, to the **RIGHT**, to the **LEFT**, to the **RIGHT FRONT**, to the **LEFT FRONT**, to the **RIGHT REAR.** With the squad in one of these positions, the instructor cautions, "Position and aiming drill, mounted." At this caution the right foot is carried 20 inches to the right and the left hand to the position of the bridle hand (par. 145, Cavalry Drill Regulations). The exercise is carried

out as described for the exercise dismounted, using the commands and means laid down in paragraph 141 for firing in the several directions. The exercise is to be executed at will when the squad has been sufficiently well instructed in detail.

When firing to the left the pistol hand will be about opposite the left shoulder and the shoulders turned about 45° to the left; when firing to the right rear the shoulders are turned about 45° to the right.

When the soldier is proficient in these exercises with the pistol in the right hand, they are repeated with the pistol in the left hand.

Revolver or pistol range practice.—The courses in range practice are given in paragraphs 147 to 199, Small Arms Firing Manual, 1913.

CHAPTER IX.

EXTRACTS FROM MANUAL OF INTERIOR GUARD DUTY.

UNITED STATES ARMY, 1914.

[The numbers refer to paragraphs in the Manual.]

Section 1. Introduction.

1. Guards may be divided into four classes: Exterior guards, interior guards, military police, and provost guards.

2. Exterior guards are used only in time of war. They belong to the domain of tactics and are treated of in the Field Service Regulations and in the drill regulations of the different arms of the service.

The purpose of exterior guards is to prevent surprise, to delay attack, and otherwise to provide for the security of the main body.

On the march they take the form of advance guards, rear guards, and flank guards. At a halt they consist of outposts.

3. Interior guards are used in camp or garrison to preserve order, protect property, and to enforce police regulations. In time of war such sentinels of an interior guard as may be necessary are placed close in or about a camp, and normally there is an exterior guard further out consisting of outposts. In time of peace the interior guard is the only guard in a camp or garrison.

4. Military police differ somewhat from either of these classes. (See Field Service Regulations.) They are used in time of war to guard prisoners, to arrest stragglers and deserters, and to maintain order and enforce police regulations in the rear of armies, along lines of communication, and in the vicinity of large camps.

5. Provost guards are used in the absence of military police, generally in conjunction with the civil authorities at or near large posts or encampments, to preserve order among soldiers beyond the interior guard.

Section 2. Classification of interior guards.

6. The various elements of an interior guard classified according to their particular purposes and the manner in which they perform their duties are as follows:

(*a*) The main guard.

(*b*) Special guards: Stable guards, park guards, prisoner guards, herd guards, train guards, boat guards, watchmen, etc.

Section 3. Details and rosters.

7. At every military post, and in every regiment or separate command in the field, an interior guard will be detailed and duly mounted.

It will consist of such number of officers and enlisted men as the commanding officer may deem necessary, and will be commanded by the senior officer or noncommissioned officer therewith, under the supervision of the officer of the day or other officer detailed by the commanding officer.

8. The system of sentinels on fixed posts is of value in discipline and training because of the direct individual responsibility which is imposed and required to be discharged in a definite and precise manner. While the desirability of this type of duty is recognized, it should only be put in practice to an extent sufficient to insure thorough instruction in this method of performing guard duty, and should not be the routine method of its performance. The usual guard duty will be performed by watchmen, patrols, or such method as in the opinion of the commanding officer may best secure results under the particular local conditions.

9. At posts where there are less than three companies the main guard and special guards may all be furnished by one company or by details from each company. It is directed that whenever possible such guards shall be furnished by a single company, for the reason that if guard details are taken from each organization at a post of two companies, troops, or bat-

teries it will result in both being so reduced as to seriously interfere with drill and instruction, whereas if details are taken from only one the other is available for instruction at full strength.

Where there are three or more companies, the main guard will, if practicable, be furnished by a single company, and, as far as practicable, the same organization will supply all details for that day for special guard, overseer, and fatigue duty. In this case the officer of the day and the officers of the guard, if there are any, will, if practicable, be from the company furnishing the guard.

10. At a post or camp where the headquarters of more than one regiment are stationed, or in the case of a small brigade in the field, if but one guard be necessary for the whole command, the details will be made from the headquarters of the command.

If formal guard mounting is to be held, the adjutant, sergeant major, and band to attend guard mounting will be designated by the commanding officer.

11. When a single organization furnishes the guard, a roster of organizations will be kept by the sergeant major under the supervision of the adjutant. (See Appendix B.)

12. When the guard is detailed from several organizations, rosters will be kept by the adjutant, of officers of the day and officers of the guard by name; by the sergeant major under the supervision of the adjutant, of sergeants, corporals, musicians, and privates of the guard by number per organization; and by first sergeants, of sergeants, corporals, musicians, and privates by name. (See Appendix A.)

13. When organizations furnish their own stable, or stable and park guards, credit will be given each for the number of enlisted men so furnished as though they had been detailed for main guard.

14. Special guards, other than stable or park guards, will be credited the same as for main guard, credited with fatigue duty, carried on special duty, or credited as the commanding officer may direct. (Pars. 6, 221, 247, and 300.)

15. Captains will supervise the keeping of company rosters and see that all duties performed are duly credited. (See pars. 355–364, A. R., for rules governing rosters, and Form 342, A. G. O., for instructions as to how rosters should be kept.)

16. There will be an officer of the day with each guard, unless in the opinion of the commanding officer the guard is so small that his services are not needed. In this case an officer will be detailed to supervise the command and instruction of the guard for such period as the commanding officer may direct.

17. When more than one guard is required for a command, a field officer of the day will be detailed, who will receive his orders from the brigade or division commander, as the latter may direct. When necessary captains may be placed on the roster for field officer of the day.

18. The detail of officers of the guard will be limited to the necessities of the service and efficient instruction; inexperienced officers may be detailed as supernumerary officers of the guard for purposes of instruction.

19. Officers serving on staff departments are, in the discretion of the commanding officer, exempt from guard duty.

20. Guard details will, if practicable, be posted or published the day preceding the beginning of the tour and officers notified personally by a written order at the same time.

21. The strength of guards and the number of consecutive days for which an organization furnishes the guard will be so regulated as to insure privates of the main guard an interval of not less than five days between tours.

When this is not otherwise practicable, extra and special duty men will be detailed for night guard duty, still performing their daily duties. When so detailed a roster will be kept by the adjutant showing the duty performed by them.

22. The members of main guards and stable and park guards will habitually be relieved every 24 hours. The length of the tour of enlisted men detailed as special guards, other than stable or park guards, will be so regulated as to permit of these men being held accountable for a strict performance of their duty.

23. Should the officer of the day be notified that men are required to fill vacancies in the guard, he will cause them to be supplied from the organization to which the guard belongs. If none are available in that organization, the adjutant will be notified and will cause them to be supplied from the organization that is next for guard. (Par. 63.)

24. The adjutant will have posted on the bulletin board at his office all data needed by company commanders in making details from their companies.

At first sergeant's call first sergeants will go to headquarters and take from the bulletin board all data necessary for making the details required from their companies; these details will be made from their company rosters.

25. In order to give ample notice, first sergeants will, when practicable, publish at retreat and post on the company bulletin board all details made from the company for duties to be performed.

26. Where rosters are required to be kept by this manual, all details will be made by roster.

Section 4. Commander of the guard.

41. The commander of the guard is responsible for the instruction and discipline of the guard. He will see that all of its members are correctly instructed in their orders and duties and that they understand and properly perform them. He will visit each relief at least once while it is on post, and at least one of these visits will be made between 12 o'clock midnight and daylight.

42. He receives and obeys the orders of the commanding officer and the officer of the day, and reports to the latter without delay all orders to the guard not received from the officer of the day; he transmits to his successor all material instructions and information relating to his duties.

43. He is responsible under the officer of the day for the general safety of the post or camp as soon as the old guard marches away from the guardhouse. In case of emergency, while both guards are at the guardhouse, the senior commander of the two guards will be responsible that the proper action is taken.

44. Officers of the guard will remain constantly with their guards, except while visiting patrols or necessarily engaged elsewhere in the performance of their duties. The commanding officer will allow a reasonable time for meals.

45. A commander of a guard leaving his post for any purpose will inform the next in command of his destination and probable time of return.

46. Except in emergencies, the commander of the guard may divide the night with the next in command, but retains his responsibility; the one on watch must be constantly on the alert.

47. When any alarm is raised in camp or garrison, the guard will be informed immediately. (Par. 234.) If the case be serious, the proper call will be sounded, and the commander of the guard will cause the commanding officer and the officer of the day to be at once notified.

48. If a sentinel calls: "The guard," the commander of the guard will at once send a patrol to the sentinel's post. If the danger be great, in which case the sentinel will discharge his piece, the patrol will be as strong as possible.

49. When practicable, there should always be an officer or noncommissioned officer and two privates of the guard at the guardhouse in addition to the sentinels there on post.

50. Between reveille and retreat, when the guard has been turned out for any person entitled to the compliment (see pars. 222 and 224), the commander of the guard, if an officer, will receive the report of the sergeant, returning the salute of the latter with the right hand. He will then draw his saber and place himself two paces in front of the center of the guard. When the person for whom the guard has been turned out approaches he faces his guard and commands: 1. **Present**, 2. **ARMS**; faces to the front and salutes. When his salute is acknowledged he resumes the carry, faces about, and commands: 1. **Order**, 2. **ARMS**; and faces to the front.

If it be an officer entitled to inspect the guard, after saluting and before bringing his guard to an order, the officer of the guard reports: "**Sir, all present or accounted for**"; or "**Sir, (so-and-so) is absent**"; or, if the roll call has been omitted: "**Sir, the guard is formed**," except that at guard mounting the commanders of the guards present their guards and salute without making any report.

Between retreat and reveille the commander of the guard salutes and reports, but does not bring the guard to a present.

51. To those entitled to have the guard turned out but not entitled to inspect it no report will be made; nor will a report be made to any officer unless he halts in front of the guard.

52. When a guard commanded by a noncommissioned officer is turned out as a compliment or for inspection the noncom-

missioned officer, standing at a right shoulder on the right of the right guide, commands: 1. **Present**, 2. **ARMS.** He then executes the rifle salute. If a report be also required, he will, after saluting and before bringing his guard to an order, report as prescribed for the officer of the guard. (Par. 50.)

53. When a guard is in line, not under inspection, and commanded by an officer, the commander of the guard salutes his regimental, battalion, and company commander by bringing the guard to attention and saluting in person.

For all other officers, excepting those entitled to the compliment from a guard (par. 224), the commander of the guard salutes in person, but does not bring the guard to attention.

When commanded by a noncommissioned officer, the guard is brought to attention in either case, and the noncommissioned officer salutes.

The commander of a guard exchanges salutes with the commanders of all other bodies of troops; the guard is brought to attention during the exchange.

"Present arms" is executed by a guard only when it has turned out for inspection or as a compliment, and at the ceremonies of guard mounting and relieving the old guard.

54. In marching a guard or a detachment of a guard the principles of paragraph 53 apply. "Eyes right" is executed only in the ceremonies of guard mounting and relieving the old guard.

55. If a person entitled to the compliment, or the regimental, battalion, or company commander, passes in rear of a guard, neither the compliment nor the salute is given, but the guard is brought to attention while such person is opposite the post of the commander.

After any person has received or declined the compliment, or received the salute from the commander of the guard, official recognition of his presence thereafter while he remains in the vicinity will be taken by bringing the guard to attention.

56. The commander of the guard will inspect the guard at reveille and retreat, and at such other times as may be necessary, to assure himself that the men are in proper condition to perform their duties and that their arms and equipments are in proper condition. For inspection by other officers, he pre-

pares the guard in each case as directed by the inspecting officer.

57. The guard will not be paraded during ceremonies unless directed by the commanding officer.

58. At all formations members of the guard or reliefs will execute inspection arms as prescribed in the drill regulations of their arm.

59. The commander of the guard will see that all sentinels are habitually relieved every two hours, unless the weather or other causes makes it necessary that it be done at shorter or longer intervals, as directed by the commanding officer.

60. He will question his noncommissioned officers and sentinels relative to the instructions they may have received from the old guard; he will see that patrols and visits of inspection are made as directed by the officer of the day.

61. He will see that the special orders for each post and member of the guard, either written or printed, are posted in the guardhouse and, if practicable, in the sentry box or other sheltered place to which the member of the guard has constant access.

62. He will see that the proper calls are sounded at the hours appointed by the commanding officer.

63. Should a member of the guard be taken sick, or be arrested, or desert, or leave his guard, he will at once notify the officer of the day. (Par. 23.)

64. He will, when the countersign is used (pars. 210 to 216), communicate it to the noncommissioned officers of the guard and see that it is duly communicated to the sentinels before the hour of challenging; the countersign will not be given to sentinels posted at the guardhouse.

65. He will have the details for hoisting the flag at reveille and lowering it at retreat, and for firing the reveille and retreat gun, made in time for the proper performance of these duties. (See pars. 338, 344, 345, and 346.) He will see that the flags are kept in the best condition possible, and that they are never handled except in the proper performance of duty.

66. He may permit members of the guard while at the guardhouse to remove their headdress, overcoats, and gloves; if they leave the guardhouse for any purpose whatever, he will require that they be properly equipped and armed according to

the character of the service in which engaged, or as directed by the commanding officer.

67. He will enter in the guard report a report of his tour of duty and, on the completion of his tour, will present it to the officer of the day. He will transmit with his report all passes turned in at the post of the guard.

68. Whenever a prisoner is sent to the guardhouse or guard tent for confinement he will cause him to be searched, and will, without unnecessary delay, report the case to the officer of the day.

69. Under war conditions, if anyone is to be passed out of camp at night, he will be sent to the commander of the guard, who will have him passed beyond the sentinels.

70. The commander of the guard will detain at the guardhouse all suspicious characters or parties attempting to pass a sentinel's post without authority, reporting his action to the officer of the day, to whom persons so arrested will be sent, if necessary.

71. He will inspect the guardrooms and cells, and the irons of such prisoners as may be ironed, at least once during his tour, and at such other times as he may deem necessary.

72. He will cause the corporals of the old and new reliefs to verify together, immediately before each relief goes on post, the number of prisoners who should then properly be at the guardhouse.

73. He will see that the sentences of prisoners under his charge are executed strictly in accordance with the action of the reviewing authority.

74. When no special prisoner guard has been detailed (par. 300), he will, as far as practicable, assign as guards over working parties of prisoners sentinels from posts guarded at night only.

75. The commander of the guard will inspect all meals sent to the guardhouse and see that the quantity and quality of food are in accordance with regulations.

76. At guard mounting he will report to the old officer of the day all cases of prisoners whose terms of sentence expire on that day, and also all cases of prisoners concerning whom no statement of charges has been received. (See par. 241.)

77. The commander of the guard is responsible for the security of the prisoners under the charge of his guard; he

becomes responsible for them after their number has been verified and they have been turned over to the custody of his guard by the old guard or by the prisoner guard or overseers.

78. The prisoners will be verified and turned over to the new guard without parading them, unless the commanding officer or the officer of the day shall direct otherwise.

79. To receive the prisoners at the guardhouse when they have been paraded and after they have been verified by the officers of the day, the commander of the new guard directs his sergeant to form his guard with an interval, and commands: 1. **Prisoners**, 2. **Right**, 3. **FACE**, 4. **Forward**, 5. **MARCH.** The prisoners having arrived opposite the interval in the new guard, he commands: 1. **Prisoners**, 2. **HALT**, 3. **Left**, 4. **FACE**, 5. **Right (or left)**, 6. **DRESS**, 7. **FRONT.**

The prisoners dress on the line of the new guard.

Section 5. Sergeant of the guard.

80. The senior noncommissioned officer of the guard always acts as sergeant of the guard and if there be no officer of the guard will perform the duties prescribed for the commander of the guard.

81. The sergeant of the guard has general supervision over the other noncommissioned officers and the musicians and privates of the guard, and must be thoroughly familiar with all of their orders and duties.

82. He is directly responsible for the property under charge of the guard and will see that it is properly cared for. He will make lists of articles taken out by working parties and see that all such articles are duly returned. If they are not, he will immediately report the fact to the commander of the guard.

83. Immediately after guard mounting he will prepare duplicate lists of the names of all noncommissioned officers, musicians, and privates of the guard, showing the relief and post or duties of each. One list will be handed as soon as possible to the commander of the guard; the other will be retained by the sergeant.

84. He will see that all reliefs are turned out at the proper time, and that the corporals thoroughly understand, and are prompt and efficient in, the discharge of their duties.

85. During the temporary absence from the guardhouse of the sergeant of the guard, the next in rank of the noncommissioned officers will perform his duties.

86. Should the corporal whose relief is on post be called away from the guardhouse, the sergeant of the guard will designate a noncommissioned officer to take the corporal's place until his return.

87. The sergeant of the guard is responsible at all times for the proper police of the guardhouse or guard tent, including the ground about them and the prison cells.

88. At first sergeant's call he will proceed to the adjutant's office and obtain the guard report book.

89. When the national or regimental colors are taken from the stacks of the color line, the color bearer and guard, or the sergeant of the guard, unarmed, and two armed privates as a guard, will escort the colors to the colonel's quarters, as prescribed for the color guard in the drill regulations of the arm of the service to which the guard belongs.

90. He will report to the commander of the guard any suspicious or unusual occurrence that comes under his notice, will warn him of the approach of any armed body, and will send to him all persons arrested by the guard.

91. When the guard is turned out its formation will be as follows: The senior noncommissioned officer, if commander of the guard, is on the right of the right guide; if not commander of the guard, he is in the line of file closers, in rear of the right four of the guard; the next in rank is right guide; the next left guide; the others in the line of file closers, usually each in rear of his relief; the field music, with its left three paces to the right of the right guide. The reliefs form in the same order as when the guard was first divided, except that if the guard consists of dismounted Cavalry and Infantry, the Cavalry forms on the left.

92. The sergeant forms the guard, calls the roll, and, if not in command of the guard, reports to the commander of the guard as prescribed in drill regulations for a first sergeant forming a troop or company; the guard is not divided into platoons or sections, and, except when the whole guard is formed prior to marching off, fours are not counted.

93. The sergeant reports as follows: "Sir, all present or accounted for," or "Sir, (so-and-so) is absent"; or if the roll

call has been omitted, "Sir, the guard is formed." Only men absent without proper authority are reported absent. He then takes his place without command.

94. At night the roll may be called by reliefs and numbers instead of names; thus, the first relief being on post: **Second relief; No. 1; No. 2; etc.; Third relief, Corporal; No. 1, etc.**

95. Calling the roll will be dispensed with in forming the guard when it is turned out as a compliment, on the approach of an armed body, or in any sudden emergency; but in such cases the roll may be called before dismissing the guard. If the guard be turned out for an officer entitled to inspect it, the roll will, unless he directs otherwise, always be called before a report is made.

96. The sergeant of the guard has direct charge of the prisoners, except during such time as they may be under the charge of the prisoner guard or overseers, and is responsible to the commander of the guard for their security.

97. He will carry the keys of the guardroom and cells, and will not suffer them to leave his personal possession while he is at the guardhouse, except as hereinafter provided. (Par. 99.) Should he leave the guardhouse for any purpose he will turn the keys over to the noncommissioned officer who takes his place. (Par. 85.)

98. He will count the knives, forks, etc., given to the prisoners with their food, and see that none of these articles remain in their possession. He will see that no forbidden articles of any kind are conveyed to the prisoners.

99. Prisoners when paraded with the guard are placed in line, in its center. The sergeant, immediately before forming the guard, will turn over his keys to the noncommissioned officer at the guardhouse. Having formed the guard he will divide it into two nearly equal parts. Indicating the point of division with his hand, he commands: 1. **Right** (or **left**), 2. **FACE**, 3. **Forward**, 4. **MARCH**, 5. **Guard**, 6. **HALT**, 7. **Left** (or **right**), 8. **FACE.**

If the first command be **right face**, the right half of the guard only will execute the movements; if **left face**, the left half only will execute them. The command **halt** is given when sufficient interval is obtained to admit the prisoners. The doors of the guardroom and cells are then opened by the noncommissioned officer having the keys. The prisoners will file

out under the supervision of the sergeant, the noncommissioned officer, and sentinel on duty at the guardhouse, and such other sentinels as may be necessary; they will form in line in the interval between the two parts of the guard.

100. To return the prisoners to the guardroom and cells, the sergeant commands: 1. **Prisoners**, 2. **Right** (or **left**), 3. **FACE**, 4. **Column right** (or **left**), 5. **MARCH.**

The prisoners, under the same supervision as before, return to their proper rooms or cells.

101. To close the guard, the sergeant commands: 1. **Left** (or **right**), 2. **FACE**, 3. **Forward**, 4. **MARCH**, 5. **Guard**, 6. **HALT**, 7. **Right** (or **left**), 8. **FACE.**

The left or right half only of the guard, as indicated, executes the movement.

102. If there be but few prisoners, the sergeant may indicate the point of division as above, and form the necessary interval by the commands: 1. **Right** (or **left**) **step**, 2. **MARCH**, 3. **Guard**, 4. **HALT**, and close the intervals by the commands: 1. **Left** (or **right**) **step**, 2. **MARCH**, 3. **Guard**, 4. **HALT.**

103. If sentinels are numerous, reliefs may, at the discretion of the commanding officer, be posted in detachments, and sergeants as well as corporals required to relieve and post them.

Section 6. Corporal of the Guard.

104. A corporal of the guard receives and obeys orders from none but noncommissioned officers of the guard senior to himself, the officers of the guard, the officer of the day, and the commanding officer.

105. It is the duty of the corporal of the guard to post and relieve sentinels and to instruct the members of his relief in their orders and duties.

106. Immediately after the division of the guard into reliefs the corporals will assign the members of their respective reliefs to posts by number, and a soldier so assigned to his post will not be changed to another during the same tour of guard duty unless by direction of the commander of the guard or higher authority. Usually experienced soldiers are placed over the arms of the guard and at remote and responsible posts.

107. Each corporal will then make a list of the members of his relief, including himself. This list will contain the num-

ber of the relief, the name, the company, and the regiment of every member thereof and the post to which each is assigned. The list will be made in duplicate, one copy to be given to the sergeant of the guard as soon as completed, the other to be retained by the corporal.

108. When directed by the commander of the guard, the corporal of the first relief forms his relief, and then commands: **CALL OFF.**

Commencing on the right, the men call off alternately **rear** and **front rank**, "one," "two," "three," "four," and so on; if in single rank, they call off from right to left. The corporal then commands: 1. **Right**, 2. **FACE**, 3. **Forward**, 4. **MARCH.**

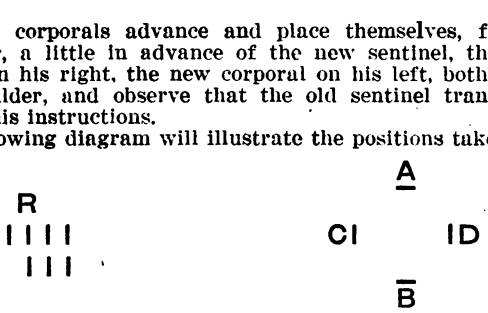
The corporal marches on the left and near the rear file in order to observe the march. The corporal of the old guard marches on the right of the leading file, and takes command when the last one of the old sentinels is relieved, changing places with the corporal of the new guard.

109. When the relief arrives at six paces from a sentinel (see par. 108), the corporal halts it and commands, according to the number of the post: **No. (——).**

Both sentinels execute port arms or saber; the new sentinel approaches the old, halting about one pace from him. (See par. 172.)

110. The corporals advance and place themselves, facing each other, a little in advance of the new sentinel, the old corporal on his right, the new corporal on his left, both at a right shoulder, and observe that the old sentinel transmits correctly his instructions.

The following diagram will illustrate the positions taken:



R is the relief; A, the new corporal; B, the old; C, the new sentinel; D, the old.

111. The instructions relative to the post having been communicated, the new corporal commands, **Post**; both sentinels

then resume the right shoulder, face toward the new corporal, and step back so as to allow the relief to pass in front of them. The new corporal then commands: "1. **Forward**, 2. **MARCH**"; the old sentinel takes his place in rear of the relief as it passes him, his piece in the same position as those of the relief. The new sentinel stands fast at a right shoulder until the relief has passed six paces beyond him, when he walks his post. The corporals take their places as the relief passes them.

112. Mounted sentinels are posted and relieved in accordance with the same principles.

113. On the return of the old relief, the corporal of the new guard falls out when the relief halts; the corporal of the old guard forms his relief on the left of the old guard, salutes, and reports to the commander of his guard: "**Sir, the relief is present**"; or "**Sir, (so-and-so) is absent,**" and takes his place in the guard.

114. To post a relief other than that which is posted when the old guard is relieved, its corporal commands:

1. **(Such) relief**, 2. **FALL IN**; and if arms are stacked, they are taken at the proper commands.

The relief is formed facing to the front, with arms at an order, the men place themselves according to the numbers of their respective posts, viz, **two, four, six**, and so on, in the **front rank**, and **one, three, five**, and so on, in the **rear rank**. The corporal, standing about two paces in front of the center of his relief, then commands: **CALL OFF**.

The men call off as prescribed. The corporal then commands: 1. **Inspection**, 2. **ARMS**, 3. **Order**, 4. **ARMS**; faces the commander of the guard, executes the rifle salute, reports: "**Sir, the relief is present**"; or "**Sir, (so-and-so) is absent**"; he then takes his place on the right at order arms.

115. When the commander of the guard directs the corporal, **Post your relief**, the corporal salutes and posts his relief as prescribed (Pars. 108 to 111); the corporal of the relief on post does not go with the new relief, except when necessary to show the way.

116. To dismiss the old relief, it is halted and faced to the front at the guardhouse by the corporal of the new relief, who then falls out; the corporal of the old relief then steps in front of the relief and dismisses it by the proper commands.

117. Should the pieces have been loaded before the relief was posted, the corporal will, before dismissing the relief, see that no cartridges are left in the chambers or magazines. The same rule applies to sentinels over prisoners.

118. Each corporal will thoroughly acquaint himself with all the special orders of every sentinel on his relief, and see that each understands and correctly transmits such orders in detail to his successor.

119. There should be at least one noncommissioned officer constantly on the alert at the guardhouse, usually the corporal whose relief is on post. This noncommissioned officer takes post near the entrance of the guardhouse, and does not fall in with the guard when it is formed. He will have his rifle constantly with him.

120. Whenever it becomes necessary for the corporal to leave his post near the entrance of the guardhouse, he will notify the sergeant of the guard, who will at once take his place, or designate another noncommissioned officer to do so.

121. He will see that no person enters the guardhouse or guard tent, or crosses the posts of the sentinels there posted without proper authority.

122. Should any sentinel call for the corporal of the guard, the corporal will, in every case, at once and quickly proceed to such sentinel. He will notify the sergeant of the guard before leaving the guardhouse.

123. He will at once report to the commander of the guard any violation of regulations or any unusual occurrence which is reported to him by a sentinel, or which comes to his notice in any other way.

124. Should a sentinel call "**The Guard,**" the corporal will promptly notify the commander of the guard.

125. Should a sentinel call "**Relief,**" the corporal will at once proceed to the post of such sentinel, taking with him the man next for duty on that post. If the sentinel is relieved for a short time only, the corporal will again post him as soon as the necessity for his relief ceases.

126. When the countersign is used, the corporal at the posting of the relief during whose tour challenging is to begin gives the countersign to the members of the relief, excepting those posted at the guardhouse.

127. He will wake the corporal whose relief is next on post in time for the latter to verify the prisoners, form his relief, and post it at the proper hour.

128. Should the guard be turned out, each corporal will call his own relief, and cause its members to fall in promptly.

129. Tents or bunks in the same vicinity will be designated for the reliefs so that all the members of each relief may, if necessary, be found and turned out by the corporal in the least time and with the least confusion.

130. When challenged by a sentinel while posting his relief, the corporal commands: 1. **Relief,** 2. **HALT**; to the sentinel's challenge he answers "**Relief,**" and at the order of the sentinel he advances alone to give the countersign, or to be recognized. When the sentinel says, "**Advance relief,**" the corporal commands: 1. **Forward,** 2. **MARCH.**

If to be relieved, the sentinel is then relieved as prescribed.

131. Between retreat and reveille, the corporal of the guard will challenge all suspicious looking persons or parties he may observe, first halting his patrol or relief, if either be with him. He will advance them in the same manner that sentinels on post advance like parties (Pars. 191 to 197), but if the route of a patrol is on a continuous chain of sentinels, he should not challenge persons coming near him unless he has reason to believe that they have eluded the vigilance of sentinels.

132. Between retreat and reveille, whenever so ordered by an officer entitled to inspect the guard, the corporal will call: "**Turn out the guard,**" announcing the title of the officer, and then, if not otherwise ordered, he will salute and return to his post.

133. As a general rule he will advance parties approaching the guard at night in the same manner that sentinels on post advance like parties. Thus, the sentinel at the guardhouse challenges and repeats the answer to the corporal, as prescribed hereafter (Par. 200); the corporal, advancing at port arms, says: "**Advance (so-and-so) with the countersign,**" or "**to be recognized,**" if there be no countersign used; the countersign being correctly given, or the party being duly recognized, the corporal says: "**Advance (so-and-so),**" repeating the answer to the challenge of the sentinel.

134. When officers of different rank approach the guardhouse from different directions at the same time, the senior

will be advanced first, and will not be made to wait for his junior.

135. Out of ranks and under arms, the corporal salutes with the rifle salute. He will salute all officers, whether by day or night.

136. The corporal will examine parties halted and detained by sentinels, and, if he have reason to believe the parties have no authority to cross sentinel's posts, will conduct them to the commander of the guard.

137. The corporal of the guard will arrest all suspicious looking characters prowling about the post or camp, all persons of a disorderly character disturbing the peace, and all persons taken in the act of committing crime against the Government on a military reservation or post. All persons arrested by corporals of the guard or by sentinels will at once be conducted to the commander of the guard by the corporal.

Section 7. Musicians of the guard.

138. The musicians of the guard will sound calls as prescribed by the commanding officer.

139. Should the guard be turned out for national or regimental colors or standards, uncased, the field music of the guard will, when the guard present arms, sound, "**To the color**" or "**To the standard**"; or, if for any person entitled thereto, the march, flourishes, or ruffles, prescribed in paragraphs 375, 376, and 377, A. R.

Section 8. Orderlies and color sentinels.

140. When so directed by the commanding officer, the officer who inspects the guard at guard mounting will select from the members of the new guard an orderly for the commanding officer and such number of other orderlies and color sentinels as may be required.

141. For these positions the soldiers will be chosen who are most correct in the performance of duty and in military bearing, neatest in person and clothing, and whose arms and accouterments are in the best condition. Clothing, arms, and equipments must conform to regulations. If there is any doubt as to the relative qualifications of two or more soldiers,

the inspecting officer will cause them to fall out at the guard-house and to form in line in single rank. He will then, by testing them in drill regulations, select the most proficient. The commander of the guard will be notified of the selection.

142. When directed by the commander of the guard to fall out and report an orderly will give his name, company, and regiment to the sergeant of the guard, and, leaving his rifle in the arm rack in his company quarters, will proceed at once to the officer to whom he is assigned, reporting: "**Sir, Private ———, Company ———, reports as orderly.**"

143. If the orderly selected be a cavalryman, he will leave his rifle in the arm rack of his troop quarters and report with his belt on, but without side arms unless specially otherwise ordered.

144. Orderlies, while on duty as such, are subject only to the orders of the commanding officer and of the officers to whom they are ordered to report.

145. When an orderly is ordered to carry a message, he will be careful to deliver it exactly as it was given to him.

146. His tour of duty ends when he is relieved by the orderly selected from the guard relieving his own.

147. Orderlies are members of the guard, and their name, company, and regiment are entered on the guard report and lists of the guard.

148. If a color line is established, sufficient sentinels are placed on the color line to guard the colors and stacks.

149. Color sentinels are posted only so long as the stacks are formed. The commander of the guard will divide the time equally among them.

150. When stacks are broken, the color sentinels may be permitted to return to their respective companies. They are required to report in person to the commander of the guard at reveille and retreat. They will fall in with the guard, under arms, at guard mounting.

151. Color sentinels are not placed on the regular reliefs, nor are their posts numbered. In calling for the corporal of the guard, they call: "**Corporal of the guard. Color line.**"

152. Officers or enlisted men passing the uncased colors will render the prescribed salute. If the colors are on the stacks, the salute will be made on crossing the color line or on passing the colors.

153. A sentinel placed over the colors will not permit them to be moved except in the presence of an armed escort. Unless otherwise ordered by the commanding officer, he will allow no one to touch them but the color bearer.

He will not permit any soldier to take arms from the stacks or to touch them except by order of an officer or noncommissioned officer of the guard.

If any person passing the colors or crossing the color line fails to salute the colors, the sentinel will caution him to do so, and if the caution be not heeded he will call the corporal of the guard and report the facts.

Section 9. Privates of the Guard.

154. Privates are assigned to reliefs by the commander of the guard, and to posts usually by the corporal of their relief. They will not change from one relief or post to another during the same tour of guard duty unless by proper authority.

Section 10. Orders for Sentinels.

155. Orders for sentinels are of two classes: General orders and special orders. General orders apply to all sentinels. Special orders relate to particular posts and duties.

156. Sentinels will be required to memorize the following:

My general orders are:

1. To take charge of this post and all Government property in view.

2. To walk my post in a military manner keeping always on the alert and observing everything that takes place within sight or hearing.

3. To report all violations of orders I am instructed to enforce.

4. To repeat all calls from posts more distant from the guardhouse than my own.

5. To quit my post only when properly relieved.

6. To receive, obey, and pass on to the sentinel who relieves me all orders from the commanding officer, officer of the day, and officers and noncommissioned officers of the guard only.

7. To talk to no one except in line of duty.

8. In case of fire or disorder to give the alarm.

9. To allow no one to commit a nuisance on or near my post.

10. In any case not covered by instructions to call the corporal of the guard.

11. To salute all officers, and all colors and standards not cased.

12. To be especially watchful at night, and, during the time for challenging, to challenge all persons on or near my post and to allow no one to pass without proper authority.

REGULATIONS RELATING TO THE GENERAL ORDERS FOR SENTINELS.

No. 1: **To take charge of this post and all Government property in view.**

157. All persons, of whatever rank in the service, are required to observe respect toward sentinels and members of the guard when such are in the performance of their duties.

158. A sentinel will at once report to the corporal of the guard every unusual or suspicious occurrence noted.

159. He will arrest suspicious persons prowling about the post or camp at any time, all parties to a disorder occurring on or near his post, and all, except authorized persons, who attempt to enter the camp at night, and will turn over to the corporal of the guard all persons arrested.

160. The number, limits, and extent of his post will invariably constitute part of the special orders of a sentinel on post. The limits of his post should be so defined as to include every place to which he is required to go in the performance of his duties.

No. 2: **To walk my post in a military manner, keeping always on the alert and observing everything that takes place within sight or hearing.**

161. A sentinel is not required to halt and change the position of his rifle on arriving at the end of his post, nor to execute to the rear, march, precisely as prescribed in the drill regulations, but faces about while walking in the manner most convenient to him and at any part of his post as may be best suited to the proper performance of his duties. He carries his

rifle on either shoulder, and in wet or severe weather, when not in a sentry box, may carry it at a secure.

162. Sentinels when in sentry boxes stand at ease. Sentry boxes will be used in wet weather only, or at other times when specially authorized by the commanding officer.

163. In very hot weather, sentinels may be authorized to stand at ease on their posts, provided they can effectively discharge their duties in this position; but they will take advantage of this privilege only on the express authority of the officer of the day or the commander of the guard.

164. A mounted sentinel may dismount occasionally and lead the horse, but will not relax his vigilance.

No. 3: **To report all violations of orders I am instructed to enforce.**

165. A sentinel will ordinarily report a violation of orders when he is inspected or relieved, but if the case be urgent, he will call the corporal of the guard, and also, if necessary, will arrest the offender.

No. 4: **To repeat all calls from posts more distant from the guardhouse than my own.**

166. To call the corporal of the guard for any purpose other than relief, fire, or disorder (Pars. 167 and 173), a sentinel will of his post. In no case will any sentinel call, "**Never mind** of his post. In no case will any sentinel call, "**Never mind the corporal**"; nor will the corporal heed such call if given.

No. 5: **To quit my post only when properly relieved.**

167. If relief becomes necessary, by reason of sickness or other cause, a sentinel will call, "**Corporal of the guard, No. (——), Relief,**" giving the number of his post.

168. Whenever a sentinel is to be relieved, he will halt, and with arms at a right shoulder, will face toward the relief, when it is 30 paces from him. He will come to a port arms with the new sentinel, and in a low tone will transmit to him all the special orders relating to the post and any other information which will assist him to better perform his duties.

No. 6: To receive, obey, and pass on to the sentinel who relieves me, all orders from the commanding officer, officer of the day, and officers and noncommissioned officers of the guard only.

169. During his tour of duty a soldier is subject to the orders of the commanding officer, officer of the day, and officers and noncommissioned officers of the guard only; but any officer is competent to investigate apparent violations of regulations by members of the guard.

170. A sentinel will quit his piece on an explicit order from any person from whom he lawfully receives orders while on post; under no circumstances will he yield it to any other person. Unless necessity therefor exists, no person will require a sentinel to quit his piece, even to allow it to be inspected.

171. A sentinel will not divulge the countersign (Pars. 209 to 217) to anyone except the sentinel who relieves him, or to a person from whom he properly receives orders, on such person's verbal order given personally. Privates of the guard will not use the countersign except in the performance of their duties while posted as sentinels.

No. 7: To talk to no one except in line of duty.

172. When calling for any purpose, challenging, or holding communication with any person a dismounted sentinel armed with a rifle or saber will take the position of port arms or saber. At night a dismounted sentinel armed with a pistol takes the position of raised pistol in challenging or holding communication. A mounted sentinel does not ordinarily draw his weapon in the daytime when challenging or holding conversation; but if drawn he holds it at advance rifle, raise pistol, or port saber, according as he is armed with a rifle, pistol, or saber. At night in challenging and holding conversation his weapon is drawn and held as just prescribed, depending on whether he is armed with a rifle, pistol, or saber.

No. 8: In case of fire or disorder to give the alarm.

173. In case of fire, a sentinel will call, "**Fire, No. (——),**" adding the number of his post; if possible, he will extinguish

the fire himself. In case of disorder he will call, "The Guard, No. (——)," adding the number of his post. If the danger be great, he will in either case discharge his piece before calling.

No. 11: To salute all officers and all colors and standards not cased.

174. When not engaged in the performance of a specific duty, the proper execution of which would prevent it, a member of the guard will salute all officers who pass him. This rule applies at all hours of the day or night, except in the case of mounted sentinels armed with a rifle or pistol, or dismounted sentinels armed with a pistol, after challenging. (See par. 181.)

175. Sentinels will salute as follows: A dismounted sentinel armed with a rifle or saber salutes by presenting arms; if otherwise armed, he salutes with the right hand.

A mounted sentinel, if armed with a saber and the saber be drawn, salutes by presenting saber; otherwise he salutes in all cases with the right hand.

176. To salute, a dismounted sentinel, with piece at a right shoulder or saber at a carry, halts and faces toward the person to be saluted when the latter arrives within 30 paces.

The limit within which individuals and insignia of rank can be readily recognized is assumed to be about 30 paces, and therefore at this distance cognizance is taken of the person or party to be saluted.

177. The salute is rendered at six paces; if the person to be saluted does not arrive within that distance, then when he is nearest.

178. A sentinel in a sentry box, armed with a rifle, stands at attention in the doorway on the approach of a person or party entitled to salute, and salutes by presenting arms according to the foregoing rules.

If armed with a saber, he stands at a carry and salutes as before.

179. A mounted sentinel on a regular post, halts, faces, and salutes in accordance with the foregoing rules. If doing patrol duty, he salutes, but does not halt unless spoken to.

180. Sentinels salute, in accordance with the foregoing rules, all persons and parties entitled to compliments from the

guards (Pars. 224, 227, and 228); officers of the Army, Navy, and Marine Corps; military and naval officers of foreign powers; officers of volunteers and militia officers when in uniform.

181. A sentinel salutes as just prescribed when an officer comes on his post; if the officer holds communication with the sentinel, the sentinel again salutes when the officer leaves him.

During the hours when challenging is prescribed, the first salute is given as soon as the officer has been duly recognized and advanced. A mounted sentinel armed with a rifle or pistol, or a dismounted sentinel armed with a pistol, does not salute after challenging.

He stands at advance rifle or raise pistol until the officer passes.

182. In case of the approach of an armed party of the guard, the sentinel will halt when it is about 30 paces from him, facing toward the party with his piece at the right shoulder. If not himself relieved, he will, as the party passes, place himself so that the party will pass in front of him; he resumes walking his post when the party has reached six paces beyond him.

183. An officer is entitled to the compliments prescribed, whether in uniform or not.

184. A sentinel in communication with an officer will not interrupt the conversation to salute. In the case of seniors the officer will salute, whereupon the sentinel will salute.

185. When the flag is being lowered at retreat, a sentinel on post and in view of the flag will face the flag, and, at the first note of the Star-Spangled Banner or to the color will come to a present arms. At the sounding of the last note he will resume walking his post.

No. 12: **To be especially watchful at night and during the time for challenging, to challenge all persons on or near my post, and to allow no one to pass without proper authority.**

186. During challenging hours, if a sentinel sees any person or party on or near his post, he will advance rapidly along his post toward such person or party and when within about 30 yards will challenge sharply, "**Halt, who is there?**" He will

place himself in the best possible position to receive or, if necessary, to arrest the person or party.

187. In case a mounted party be challenged, the sentinel will call, "**Halt, Dismount. Who is there?**"

188. The sentinel will permit only one of any party to approach him for the purpose of giving the countersign (Pars. 209 to 217), or, if no countersign be used, of being duly recognized. When this is done the whole party is advanced, i. e., allowed to pass.

189. In all cases the sentinel must satisfy himself beyond a reasonable doubt that the parties are what they represent themselves to be and have a right to pass. If he is not satisfied, he must cause them to stand and call the corporal of the guard. So, likewise, if he have no authority to pass persons with the countersign, or when the party has not the countersign, or gives an incorrect one.

190. A sentinel will not permit any person to approach so close as to prevent the proper use of his own weapon before recognizing the person or receiving the countersign.

191. When two or more persons approach in one party, the sentinel, on receiving an answer that indicates that some one in the party has the countersign, will say, "**Advance one with the countersign,**" and if the countersign is given correctly, will then say, "**Advance (so-and-so),**" repeating the answer to his challenge. Thus if the answer be "**Relief (friend with the countersign, patrol, etc.),**" the sentinel will say, "**Advance one with the countersign**"; then "**Advance, relief (friends, patrol, etc.).**"

192. If a person having the countersign approach alone, he is advanced to give the countersign. Thus if the answer be "**Friend with the countersign (or officer of the day, or etc.),**" the sentinel will say, "**Advance, friend (or officer of the day, or etc.) with the countersign**"; then "**Advance, friend (or officer of the day, or etc.).**"

193. If two or more persons approach a sentinel's post from different directions at the same time, all such persons are challenged in turn and required to halt and to remain halted until advanced.

The senior is first advanced, in accordance with the foregoing rules.

194. If a party is already advanced and in communication with a sentinel, the latter will challenge any other party that may approach; if the party challenged be senior to the one already on his post, the sentinel will advance the new party at once. The senior may allow him to advance any or all of the other parties; otherwise the sentinel will not advance any of them until the senior leaves him. He will then advance the senior only of the remaining parties, and so on.

195. The following order of rank will govern a sentinel in advancing different persons or parties approaching his post: Commanding officers, officer of the day, officer of the guard, officers, patrols, reliefs, noncommissioned officers of the guard in order of rank, friends.

196. A sentinel will never allow himself to be surprised, nor permit two parties to advance upon him at the same time.

197. If no countersign be used, the rules for challenging are the same. The rules for advancing parties are modified only as follows: Instead of saying "**Advance (so-and-so) with the countersign,**" the sentinel will say "**Advance (so-and-so) to be recognized.**" Upon recognition he will say, "**Advance (so-and-so.)**"

198. Answers to a sentinel's challenge intended to confuse or mislead him are prohibited, but the use of such an answer as "**Friends with the countersign,**" is not to be understood as misleading, but as the usual answer made by officers, patrols, etc., when the purpose of their visit makes it desirable that their official capacity should not be announced.

SPECIAL ORDERS FOR SENTINELS AT THE POST OF THE GUARD.

199. Sentinels posted at the guard will be required to memorize the following:

Between reveille and retreat to turn out the guard for all persons designated by the commanding officer, for all colors or standards not cased, and in time of war for all armed parties approaching my post, except troops at drill and reliefs and detachments of the guard.

At night, after challenging any person or party, to advance no one but call the corporal of the guard, repeating the answer to the challenge.

200. After receiving an answer to his challenge, the sentinel calls, "**Corporal of the guard (so-and-so),**" repeating the answer to the challenge.

He does not in such cases repeat the number of his post.

201. He remains in the position assumed in challenging until the corporal has recognized or advanced the person or party challenged, when he resumes walking his post, or, if the person or party be entitled thereto, he salutes and, as soon as the salute has been acknowledged, resumes walking his post.

202. The sentinel at the post of the guard will be notified by direction of the commanding officer of the presence in camp or garrison of persons entitled to the compliment. (Par. 224.)

203. The following examples illustrate the manner in which the sentinel at the post of the guard will turn out the guard upon the approach of persons or parties entitled to the compliment (Pars. 224, 227, and 228), "**Turn out the guard, commanding officer**"; "**Turn out the guard, governor of a Territory**"; "**Turn out the guard, national colors**"; "**Turn out the guard, armed party**"; etc.

At the approach of the new guard at guard mounting the sentinel will call, "**Turn out the guard, armed party.**"

204. Should the person named by the sentinel not desire the guard formed, he will salute, whereupon the sentinel will call "**Never mind the guard.**"

205. After having called "**Turn out the guard,**" the sentinel will never call "**Never mind the guard,**" on the approach of an armed party.

206. Though the guard be already formed he will not fail to call, "**Turn out the guard,**" as required in his special orders, except that the guard will not be turned out for any person while his senior is at or coming to the post of the guard.

207. The sentinels at the post of the guard will warn the commander of the approach of any armed body and of the presence in the vicinity of all suspicious or disorderly persons.

208. In case of fire or disorder in sight or hearing, the sentinel at the guardhouse will call the corporal of the guard and report the facts to him.

Section 11. Countersigns and Paroles.

209. *Seventy-seventh article of war.*—Any person subject to military law who makes known the parole or countersign to any person not entitled to receive it according to the rules and discipline of war, or gives a parole or countersign different from that which he received, shall, if the offense be committed in time of war, suffer death or such other punishment as a court-martial may direct. (See Par. 171.)

210. The **countersign** is a word given daily from the principal headquarters of a command to aid guards and sentinels in identifying persons who may be authorized to pass at night.

It is given to such persons as may be authorized to pass and repass sentinels' posts during the night, and to officers, noncommissioned officers, and sentinels of the guard.

211. The **parole** is a word used as a check on the countersign in order to obtain more accurate identification of persons. It is imparted only to those who are entitled to inspect guards and to commanders of guards.

The parole or countersign, or both, are sent sealed in the form of an order to those entitled to them.

212. When the commander of the guard demands the parole, he will advance and receive it as the corporal receives the countersign. (See Par. 133.)

213. As the communications containing the parole and countersign must at times be distributed by many orderlies, the parole intrusted to many officers, and the countersign and parole to many officers and sentinels, and as both the countersign and parole must, for large commands, be prepared several days in advance, there is always danger of their being lost or becoming known to persons who would make improper use of them; moreover, a sentinel is too apt to take it for granted that any person who gives the right countersign is what he represents himself to be; hence for outpost duty there is greater security in omitting the use of the countersign and parole, or in using them with great caution. The chief reliance should be upon personal recognition or identification of all persons claiming authority to pass.

Persons whose sole means of identification is the countersign, or concerning whose authority to pass there is a reason-

able doubt, should not be allowed to pass without the authority of the corporal of the guard after proper investigation; the corporal will take to his next superior any person about whom he is not competent to decide.

214. The **countersign** is usually the name of a battle; the **parole**, that of a general or other distinguished person.

215. When they can not be communicated daily, a series of words for some days in advance may be sent to posts or detachments that are to use the same parole or countersign as the main body.

216. If the countersign be lost, or if a member of the guard deserts with it, the commander on the spot will substitute another for it and report the case at once to headquarters.

217. In addition to the countersign, use may be made of preconcerted signals, such as striking the rifle with the hand or striking the hands together a certain number of times as agreed upon. Such signals may be used only by guards that occupy exposed points.

They are used before the countersign is given and must not be communicated to anyone not entitled to know the countersign. Their use is intended to prevent the surprise of a sentinel.

In the daytime signals such as raising a cap or a handkerchief in a prearranged manner may be used by sentinels to communicate with the guard or with each other.

Section 12. Guard Patrols.

218. A guard patrol consists of one or more men detailed for the performance of some special service connected with guard duty.

219. If the patrol be required to go beyond the chain of sentinels, the officer or noncommissioned officer in charge will be furnished with the countersign and the outposts and sentinels warned.

220. If challenged by a sentinel, the patrol is halted by its commander, and the noncommissioned officer accompanying it advances alone and gives the countersign.

Section 13. Watchmen.

221. Enlisted men may be detailed as watchmen or as overseers over prisoners, and as such will receive their orders and perform their duties as the commanding officer may direct.

Section 14. Compliments from Guards.

222. The compliment from a guard consists in the guard turning out and presenting arms. (See Par. 50.) No compliments will be paid between retreat and reveille except as provided in paragraphs 361 and 362, nor will any person other than those named in paragraph 224 receive the compliment.

223. Though a guard does not turn out between retreat and reveille as a matter of compliment, it may be turned out for inspection at any time by a person entitled to inspect it.

224. Between reveille and retreat, the following persons are entitled to the compliment: The President; sovereign or chief magistrate of a foreign country and members of a royal family; Vice President; President and President pro tempore of the Senate; American and foreign ambassadors; members of the Cabinet; Chief Justice; Speaker of the House of Representatives; committees of Congress officially visiting a military post; governors within their respective States and Territories; governors general; Assistant Secretary of War officially visiting a military post; all general officers of the Army; general officers of foreign services visiting a post; naval, marine, volunteer, and militia officers in the service of the United States and holding the rank of general officer; American or foreign envoys or ministers; ministers accredited to the United States; chargés d'affaires accredited to the United States; consuls general accredited to the United States; commanding officer of the post or camp; officer of the day.

225. The relative rank between officers of the Army and Navy is as follows: General with admiral, lieutenant general with vice admiral, major general with rear admiral, brigadier general with commodore,[1] colonel with captain, lieutenant colonel with commander, major with lieutenant commander, captain with lieutenant, first lieutenant with lieutenant (junior grade), second lieutenant with ensign. (A. R. 12.)

[1] The grade of commodore ceased to exist as a grade on the active list of the Navy of the United States on Mar. 3, 1899. By section 7 of the act of Mar. 3, 1899, the nine junior rear admirals are authorized to receive the pay and allowances of a brigadier general of the Army.

226. Sentinels will not be required to memorize paragraph 224, and, except in the cases of general officers of the Army, the commanding officer and the officer of the day will be advised in each case of the presence in camp or garrison of persons entitled to the compliment.

227. Guards will turn out and present arms when the national or regimental colors or standards, not cased, are carried past by a guard or an armed party. This rule also applies when the party carrying the colors is at drill. If the drill is conducted in the vicinity of the guardhouse, the guard will be turned out when the colors first pass, and not thereafter.

228. In case the remains of a deceased officer or soldier are carried past, the guard will turn out and present arms.

229. In time of war all guards will turn out under arms when armed parties, except troops at drill and reliefs or detachments of the guard, approach their post. (See Par. 53.)

230. The commander of the guard will be notified of the presence in camp or garrison of all persons entitled to the compliment except general officers of the Army, the commanding officer, and the officer of the day. Members of the guard will salute all persons entitled to the compliment and all officers in the military or naval service of foreign powers, officers of the Army, Navy, and Marine Corps, officers of volunteers, and officers of militia when in uniform.

GENERAL RULES CONCERNING GUARD DUTY.

232. *Eighty-fifth article of war.*— * * * Any person subject to military law, except an officer, who is found drunk on duty shall be punished as a court-martial may direct.

233. All material instructions given to a member of the guard by an officer having authority will be promptly communicated to the commander of the guard by the officer giving them.

234. Should the guard be formed, soldiers will fall in ranks under arms. At roll call each man, as his name or number and relief are called, will answer "Here," and come to an order arms.

235. Whenever the guard or a relief is dismissed, each member not at once required for duty will place his rifle in the

arm racks, if they be provided, and will not remove it therefrom unless he requires it in the performance of some duty.

236. Without permission from the commander of the guard, members of the main guard, except orderlies, will not leave the immediate vicinity of the guardhouse. Permission to leave will not be granted except in cases of necessity.

237. Members of the main guard, except orderlies, will not remove their accouterments or clothing without permission from the commander of the guard. (Par. 66.)

Section 15. Prisoners.

238. Articles of war 69, 70, 71, 72, and 73 have special reference to the confinement of prisoners and should be carefully borne in mind.

239. The commander of the guard will place a civilian in confinement on an order from higher authority only, unless such civilian is arrested while in the act of committing some crime within the limits of the military jurisdiction, in which case the commanding officer will be immediately notified.

240. Except as provided in the sixty-eighth article of war, or when restraint is necessary, no soldier will be confined without the order of an officer, who shall previously inquire into his offense. (A. R. 930.)

241. An officer ordering a soldier into confinement will send, as soon as practicable, a written statement, signed by himself, to the commander of the guard, setting forth the name, company, and regiment of such soldier, and a brief statement of the alleged offense. It is a sufficient statement of the offense to give the number and article of war under which the soldier is charged.

242. A prisoner, after his first day of confinement, and until his sentence has been duly promulgated, is considered as held in confinement by the commanding officer. After due promulgation of his sentence, the prisoner is held in confinement by authority of the officer who reviews the proceedings of the court awarding sentence. The commander of the guard will state in his report, in the proper place, the name of the officer by whom the prisoner was originally confined.

243. Enlisted men against whom charges have been preferred will be designated as "awaiting trial"; enlisted men

who have been tried will, prior to the promulgation of the result, be designated as "awaiting result of trial"; enlisted men serving sentences of confinement not involving dishonorable discharge will be designated as "garrison prisoners." Persons sentenced to dismissal or dishonorable discharge and to terms of confinement at military posts or elsewhere will be designated as "general prisoners." (A. R. 928.)

244. The sentences of prisoners will be read to them upon the order promulgating the same is received. The officer of the guard, or the officer of the day if there be no officer of the guard, will read them unless the commanding officer shall direct otherwise.

245. When the date for the commencement of a term of confinement imposed by sentence of a court-martial is not expressly fixed by sentence, the term of confinement begins on the date of the order promulgating it. The sentence is continuous until the term expires, except when the person sentenced is absent without authority. (A. R. 969.)

246. When soldiers awaiting trial or the result of trial, or undergoing sentence commit offenses for which they are tried, the second sentence will be executed upon the expiration of the first.

247. Prisoners awaiting trial by, or undergoing sentence of, a general court-martial and those confined for serious offenses will be kept apart, when practicable, from those confined by sentence of an inferior court or for minor offenses. Enlisted men in confinement for minor offenses, or awaiting trial or the result of trial for the same, will ordinarily be sent to work under charge of unarmed overseers instead of armed sentinels and will be required to attend drills unless the commanding officer shall direct otherwise.

248. Prisoners, other than general prisoners, will be furnished with food from their respective companies or from the organizations to which they may be temporarily attached.

The food of prisoners will, when practicable, be sent to their places of confinement, but post commanders may arrange to send the prisoners, under proper guard, to their messes for meals.

When there is no special mess for general prisoners, they will be attached for rations to companies.

Enlisted men bringing meals for the prisoners will not be allowed to enter the prison room. (See Par. 289.)

249. With the exception of those specially designated by the commanding officer, no prisoners will be allowed to leave the guardhouse unless under charge of a sentinel and passed by an officer or noncommissioned officer of the guard. The commanding officer may authorize certain garrison prisoners and paroled general prisoners to leave the guardhouse, not under the charge of a sentinel, for the purpose of working outside under such surveillance and restrictions as he may impose.

250. Prisoners reporting themselves sick at sick call, or at the time designated by the commanding officer, will be sent to the hospital under charge of proper guard, with a sick report kept for the purpose. The recommendation of the surgeon will be entered in the guard report.

251. The security of sick prisoners in the hospital devolves upon the post surgeon, who will, if necessary, apply to the post commander for a guard.

252. Prisoners will be paraded with the guard only when directed by the commanding officer or the officer of the day.

253. A prisoner under charge of a sentinel will not salute an officer.

254. All serviceable clothing which belongs to a prisoner, and his blankets, will accompany him to the post designated for his confinement, and will be fully itemized on the clothing list sent to that post. The guard in charge of the prisoner during transfer will be furnished with a duplicate of this list, and will be held responsible for the delivery of all articles itemized therein with the prisoner. At least one serviceable woolen blanket will be sent with every such prisoner so transferred. (A. R. 939.)

255. When mattresses are not supplied, each prisoner in the guardhouse will be allowed a bed sack and 30 pounds of straw per month for bedding. So far as practicable iron bunks will be furnished to all prisoners in post guardhouses and prison rooms. (A. R. 1084.)

If the number of prisoners, including general prisoners, confined at a post justifies it, the commanding officer will detail a commissioned officer as "officer in charge of prison-

ers." At posts where the average number of prisoners continually in confinement is less than 12, the detail of an officer in charge of prisoners will not be made.

Section 16. Guarding Prisoners.

299. The sentinel at the post of the guard has charge of the prisoners except when they have been turned over to the prisoner guard or overseers. (Pars. 247 and 300 to 304.)

(a) He will allow none to escape.

(b) He will allow none to cross his post leaving the guardhouse except when passed by an officer or noncommissioned officer of the guard.

(c) He will allow no one to communicate with prisoners without permission from proper authority.

(d) He will promptly report to the corporal of the guard any suspicious noise made by the prisoners.

(e) He will be prepared to tell, whenever asked, how many prisoners are in the guardhouse and how many are out at work or elsewhere.

Whenever prisoners are brought to his post returning from work or elsewhere, he will halt them and call the corporal of the guard, notifying him of the number of prisoners returning. Thus: "Corporal of the guard, (so many) prisoners."

He will not allow prisoners to pass into the guardhouse until the corporal of the guard has responded to the call and ordered him to do so.

300. Whenever practicable, special guards will be detailed for the particular duty of guarding working parties composed of such prisoners as can not be placed under overseers. (Par. 247.)

301. The prisoner guard and overseers will be commanded by the police officer; if there be no police officer, then by the officer of the day.

302. The provost sergeant is sergeant of the prisoner guard and overseers, and as such receives orders from the commanding officer and the commander of the prisoner guard only.

303. Details for prisoner guard are marched to the guardhouse and mounted by being inspected by the commander of

the main guard, who determines whether all of the men are in proper condition to perform their duties and whether their arms and equipments are in proper condition, and rejects any men found unfit.

304. When prisoners have been turned over to the prisoner guard or overseers, such guards or overseers are responsible for them under their commander, and all responsibility and control of the main guard ceases until they are returned to the main guard. (Par. 306.)

305. If a prisoner attempts to escape, the sentinel will call "**Halt.**" If he fails to halt when the sentinel has once repeated his call, and if there be no other possible means of preventing his escape, the sentinel will fire upon him.

The following will more fully explain the important duties of a sentinel in this connection:

(Circular.)

WAR DEPARTMENT,
ADJUTANT GENERAL'S OFFICE,
Washington, November 1, 1887.

By direction of the Secretary of War, the following is published for the information of the Army:

UNITED STATES CIRCUIT COURT, EASTERN DISTRICT OF MICHIGAN, AUGUST 1, 1887.

THE UNITED STATES V. JAMES CLARK.

The circuit court has jurisdiction of a homicide committed by one soldier upon another within a military reservation of the United States.

If a homicide be committed by a military guard without malice and in the performance of his supposed duty as a soldier, such homicide is excusable, unless it was manifestly beyond the scope of his authority or was such that a man of ordinary sense and understanding would know that it was illegal.

It seems that the sergeant of the guard has a right to shoot a military convict if there be no other possible means of preventing his escape.

The common-law distinction between felonies and misdemeanors has no application to military offenses.

While the finding of a court of inquiry acquitting the prisoner of all blame is not a legal bar to a prosecution, it is entitled to weight as an expression of the views of the military court of the necessity of using a musket to prevent the escape of the deceased.

* * * * *

By order of the Secretary of War:

R. C. DRUM, *Adjutant General.*

The following is taken from Circular No. 3, of 1883, from Headquarters Department of the Columbia:

VANCOUVER BARRACKS, W. T., *April 20, 1883.*

To the ASSISTANT ADJUTANT GENERAL,
Department of the Columbia.

SIR:

* * * * *

A sentinel is placed as guard over prisoners to prevent their escape, and, for this purpose, he is furnished a musket, with ammunition. To prevent escape is his first and most important duty.

* * * * *

I suppose the law to be this: That a sentinel shall not use more force or violence to prevent the escape of a prisoner than is necessary to effect that object, but if the prisoner, after being ordered to halt, continues his flight the sentinel may maim or even kill him, and it is his duty to do so.

A sentinel who allows a prisoner to escape without firing upon him, and firing to hit him, is, in my judgment, guilty of a most serious military offense, for which he should and would be severely punished by a general court-martial.

* * * * *

(Signed) HENRY A. MORROW,
Colonel Twenty-first Infantry, Commanding Post.

[Third indorsement.]

OFFICE JUDGE ADVOCATE,
MILITARY DIVISION OF THE PACIFIC,
May 11, 1883.

Respectfully returned to the assistant adjutant general, Military Division of the Pacific, concurring fully in the views expressed by Col. Morrow. I was not aware that such a view had ever been questioned. That the period is a time of peace does not affect the authority and duty of the sentinel or guard to fire upon the escaping prisoner, if this escape can not other-

wise be prevented. He should, of course, attempt to stop the prisoner before firing by ordering him to halt, and will properly warn him by the words "Halt, or I fire," or words to such effect.

W. WINTHROP, *Judge Advocate.*

[Fourth indorsement.]

HEADQUARTERS MILITARY DIVISION OF THE PACIFIC,
May 11, 1883.

Respectfully returned to the commanding general, Department of the Columbia, approving the opinion of the commanding officer, Twenty-first Infantry, and of the judge advocate of the division, in respect to the duty of and method to be adopted by sentinels in preventing prisoners from escaping.

* * * * *

By command of Maj. Gen. Schofield:

J. C. KELTON,
Assistant Adjutant General.

See also Circular No. 53, A. G. O., December 22, 1900.

306. On approaching the post of the sentinel at the guardhouse, a sentinel of the prisoner guard or an overseer in charge of prisoners will halt them and call, "**No. 1, (so many) prisoners.**" He will not allow them to cross the post of the sentinel until so directed by the corporal of the guard.

307. Members of the prisoner guard and overseers placed over prisoners for work will receive specific and explicit instructions covering the required work; they will be held strictly responsible that the prisoners under their charge properly and satisfactorily perform the designated work.

Section 17. Stable guards.

STABLE GUARDS.

308. Under the head of stable guards will be included guards for cavalry stables, artillery stables and parks, mounted infantry stables, machine-gun organization stables and parks, and

quartermaster stables and parks. Where the words "troop" and "cavalry" are used, they will be held to include all of these organizations.

309. When troop stable guards are mounted they will guard the stables of the cavalry (see Par. 13). When no stable guards are mounted the stables will be guarded by sentinels posted from the main guard under the control of the officer of the day.

The instructions given for troop stable guard will be observed as far as applicable by the noncommissioned officers and sentinels of the main guard when in charge of the stables.

TROOP STABLE GUARDS.

310. Troop stable guards will not be used except in the field, or when it is impracticable to guard the stables by sentinels from the main guard.

311. Troop stable guards will be under the immediate control of their respective troop commanders; they will be posted in each cavalry stable or near the picket line, and will consist of not less than one noncommissioned officer and three privates.

Stable guards are for the protection of the horses, stables, forage, equipments, and public property generally. They will, in addition, enforce the special regulations in regard to stables, horses, and parks.

312. Sentinels of stable guards will be posted at the stables or at the picket lines when the horses are kept outside. The troop stable guard may be used as a herd guard during the day time or when grazing is practicable.

313. The troop stable guard, when authorized by the post commander, will be mounted under the supervision of the troop commander. It will be armed, at the discretion of the troop commander, with either rifle or pistol.

314. The tour continues for 24 hours, or until the guard is relieved by a new guard.

315. The employment of stable guards for police and fatigue duties at the stables is forbidden; but this will not prohibit them from being required to assist in feeding grain before reveille.

316. The troop stable guard will attend stables with the rest of the troop and groom their own horses, the sentinels being taken off post for the purpose.

317. Neither the noncommissioned officer nor the members of the stable guard will absent themselves from the immediate vicinity of the stables except in case of urgent necessity, and then for no longer time than is absolutely necessary. No member of the guard will leave for any purpose without the authority of the noncommissioned officer of the guard.

318. The noncommissioned officer and one member of the stable guard will go for meals at the proper hour; upon their return the other members of the guard will be directed to go by the noncommissioned officer.

319. When the horses are herded each troop will furnish its own herd guard. (Par. 14.)

320. Smoking in the stables or their immediate vicinity is prohibited. No fire or light, other than electric light or stable lanterns, will be permitted in the stables. A special place will be designated for trimming, filling, and lighting lanterns.

NONCOMMISSIONED OFFICER OF THE TROOP STABLE GUARD.

321. The noncommissioned officer receives his orders from his troop commander, to whom he will report immediately after posting his first relief, and when relieved will turn over all his orders to his successor. He instructs his sentinels in their general and special duties; exercises general supervision over his entire guard; exacts order and cleanliness about the guardroom; prevents the introduction of intoxicants into the guardhouse and stables; receives, by count, from his predecessor, the animals, horse equipments, and all property (both private and public) pertaining thereto; examines, before relieving his predecessor, all locks, windows, and doors, and should any be found insecure he will report the fact to his troop commander when he reports for orders. He will personally post and relieve each sentinel, taking care to verify the property responsibility of the sentinel who comes off post, and see that the sentinel who goes on post is aware of the property responsibility that he assumes.

322. That the noncommissioned officer may be more thoroughly informed of his responsibility, all horses returning, except those from a regular formation, will be reported to him. He will then notify the sentinel on post, and, in the absence of the stable sergeant, will see that the horses are promptly cared for.

In case of abuse, he will promptly report to the troop commander. Should the horse be the private property of an officer, he will report such abuse to the owner.

323. The noncommissioned officer will report any unusual occurrence during his tour direct to his troop commander.

324. Horses and other property for which the noncommissioned officer is responsible will not be taken from the stables without the authority of the post or troop commander.

325. The noncommissioned officer must answer the sentinel's calls promptly.

326. In case of fire, the noncommissioned officer will see that the requirements of paragraph 334 are promptly carried out.

327. Whenever it becomes necessary for the noncommissioned officer to leave his guard, he will designate a member of it to take charge and assume his responsibility during his absence.

SENTINELS OF THE TROOP STABLE GUARD.

328. The sentinel in the discharge of his duties will be governed by the regulations for sentinels of the main guard whenever they are applicable—such as courtesies to officers, walking post in a soldierly manner, challenging, etc.; he will not turn out the guard except when ordered by proper authority.

329. The sentinel will receive orders from the commanding officer, the troop commander, and the noncommissioned officers of the stable guard only, except when the commanding officer directs the officer of the day to inspect the stable guard.

330. In the field and elsewhere when directed by the commanding officer the sentinel when posted will verify the number of horses for which he is responsible, and when relieved will give the number to his successor.

331. The sentinel will not permit any horse or equipments to be taken from the stables, except in the presence of the noncommissioned officer.

332. Should a horse get loose, the sentinel will catch him and tie him up. If he be unable to catch the horse, the noncommissioned officer will at once be notified. In case a horse be cast, or in any way entangled, he will relieve him, if possible; if unable to relieve him, he will call the noncommissioned officer. Sentinels are forbidden to punish or maltreat a horse.

333. When a horse is taken sick, the sentinel will notify the noncommissioned officer, who in turn will call the farrier and see that the horse is properly attended to.

334. In case of fire the sentinel will give the alarm by stepping outside the stable and firing his pistol or piece repeatedly, and calling out at the same time, "**Fire, stables, Troop (——).**"

As soon as the guard is alarmed, he will take the necessary precautions in opening or closing the doors so as to prevent the spreading of the fire and make it possible to remove the horses; he will drop the chains and bars, and, with the other members of the guard, proceed to lead out the horses and secure them at the picket line or such other place as may have been previously designated.

335. Sentinels over horses, or in charge of prisoners, receive orders from the stable sergeant, so far as the care of the horses and the labor of prisoners are concerned.

336. In field artillery and machine-gun organizations, the guard for the stables has charge of the guns, caissons, etc., with their ammunition and stores, as well as the horses, harness, and forage.

Section 18. Flags.

337. The garrison, post, and storm flags are national flags and shall be of bunting. The union of each is as described in paragraph 216, Army Regulations, and shall be of the following proportions: Width, seven-thirteenths of the hoist of the flag; length, seventy-six one-hundredths of the hoist of the flag.

The garrison flag will have 38 feet fly and 20 feet hoist. It will be furnished only to posts designated in orders from time

to time from the War Department, and will be hoisted only on holidays and important occasions.

The post flag will have 19 feet fly and 10 feet hoist. It will be furnished for all garrison posts and will be hoisted in pleasant weather.

The storm flag will have 9 feet 6 inches fly and 5 feet hoist. It will be furnished for all occupied posts for use in stormy and windy weather. It will also be furnished to national cemeteries. (A. R. 223.)

338. At every military post or station the flag will be hoisted at the sounding of the first note of the reveille, or of the first note of the march, if a march be played before the reveille. The flag will be lowered at the sounding of the last note of the retreat, while the flag is being lowered the band will play "The Star-Spangled Banner," or, if there be no band present, the field music will sound "to the color." When "to the color" is sounded by the field music while the flag is being lowered the same respect will be observed as when "The Star-Spangled Banner" is played by the band, and in either case officers and enlisted men out of ranks will face toward the flag, stand at attention, and render the prescribed salute at the last note of the music. (A. R. 437.)

The lowering of the flag will be so regulated as to be completed at the last note of "The Star-Spangled Banner" or "to the color."

339. The national flag will be displayed at a seacoast or lake fort at the beginning of and during an action in which a fort may be engaged, whether by day or by night. (A. R. 437.)

340. The national flag will always be displayed at the time of firing a salute. (A. R. 397.)

341. The flag of a military post will not be dipped by way of salute or compliment. (A. R. 405.)

342. On the death of an officer at a military post the flag is displayed at halfstaff and so remains between reveille and retreat until the last salvo or volley is fired over the grave; or if the remains are not interred at the post until they are removed therefrom. (A. R. 422.)

343. During the funeral of an enlisted man at a military post the flag is displayed at halfstaff. It is hoisted to the top after the final volley or gun is fired or after the remains are

taken from the post. The same honors are paid on the occasion of the funeral of a retired enlisted man. (A. R. 423.)

344. When practicable, a detail consisting of a noncommissioned officer and two privates of the guard will raise or lower the flag. This detail wears side arms or if the special equipments do not include side arms then belts only.

The noncommissioned officer, carrying the flag, forms the detail in line, takes his post in the center and marches it to the staff. The flag is then securely attached to the halyards and rapidly hoisted. The halyards are then securely fastened to the cleat on the staff and the detail marched to the guardhouse.

345. When the flag is to be lowered, the halyards are loosened from the staff and made perfectly free. At retreat the flag is lowered at the last note of retreat. It is then neatly folded and the halyards made fast. The detail is then re-formed and marched to the guardhouse, where the flag is turned over to the commander of the guard.

The flag should never be allowed to touch the ground and should always be hoisted or lowered from the leeward side of the staff, the halyards being held by two persons.

Section 19. Reveille and Retreat Gun.

346. The morning and evening gun will be fired by a detachment of the guard, consisting, when practicable, of a corporal and two privates. The morning gun is fired at the first note of reveille, or, if marches be played before the reveille, it is fired at the beginning of the first march. The retreat gun is fired at the last note of retreat.

The corporal marches the detachment to and from the piece, which is fired, sponged out, and secured under his direction.

Section 20. Guard Mounting.

347. Guard mounting will be formal or informal as the commanding officer may direct. It will be held as prescribed in the drill regulations of the arm of the service to which the guard belongs. If none is prescribed, then as for infantry. In case the guard is composed wholly of mounted organizations, guard mounting may be held mounted.

348. When Infantry and mounted troops dismounted are united for guard mounting, all details form as prescribed for Infantry.

FORMAL GUARD MOUNTING—MOUNTED.

(Extract Cavalry Drill Regulations, 1916.)

857. Formal guard mounting will ordinarily be held only in posts or camps where a band is present. At the *assembly* the men of each troop designated for guard form at stand to horse on their troop parade grounds, the noncommissioned officers falling in as file closers; the supernumeraries do not fall in; each first sergeant verifies his detail and inspects the dress and general appearance, replaces any man unfit to go on guard, turns the detail over to the senior noncommissioned officer, and retires. The senior noncommissioned officer then mounts, draws saber, and causes the detail to mount. The band, accompanied by the buglers, takes its place on the parade ground so that the left of its front rank shall be 12 yards to the right of the rank when the guard is formed.

858. At *adjutant's call* the adjutant takes post so as to be 12 yards in front of and facing the center of the guard when formed; the sergeant major takes post facing to the left 12 yards to the left of the front rank of the band; the band plays in appropriate time, the details are marched to the parade ground by their senior noncommissioned officers; the detail that arrives first is marched to the line so that upon halting the head of the horse of the man on the right shall be on line with and near to the sergeant major's horse, the noncommissioned officer, having halted his detail, places himself facing the sergeant major at a distance from him a little greater than the front of his detail, and commands: **DRESS.** The detail dresses on its right trooper; the noncommissioned officers of the detail in the line of file closers rein back so as to be 6 yards in rear of the rank; the noncommissioned officer in command of the detail then commands, **Front,** salutes, and reports, *The detail is correct,* or (*so many*) *sergeants, corporals, or privates are absent;* the sergeant major returns the salute; the noncommissioned officer in charge of the detail then passes by the right of the guard and takes post on the line of noncommissioned officers in rear of the

right trooper of his detail. Should there be more than one detail, it is formed in like manner on the left of the one preceding; the privates, noncommissioned officers, and commander of each detail dress on those of the preceding details in the same rank or line.

Should the detail from a troop not include a noncommissioned officer, one will be detailed to perform the duties of commander of the detail. In this case such noncommissioned officer, after reporting to the sergeant major, passes around the right flank between the guard and the band and retires.

The troops detailed alternate in taking the right of the line.

859. When the last detail has formed the sergeant major draws saber, verifies the details, causes the guard to count fours, and, if there be more than five fours, divides the guard into two or more platoons; he designates the center guide or guides and then commands, **DRESS** (Par. 362), verifies the alignment of rank and the line of noncommissioned officers, and then returns to the right of the rank, turns to the left, commands, **FRONT**, passes to a point midway between the adjutant and center of the guard, halts facing the adjutant, salutes, and reports: *Sir, the details are correct;* or, *Sir, (so many) sergeants, corporals, or privates are absent;* the adjutant returns the salute, directs the sergeant major: *Take your post,* and then draws saber; the sergeant major turns to the left about and takes post 3 yards to the left of and on a line with the rank. When the sergeant major has completed his report the officer of the guard takes post facing to the front 8 yards in front of the center of the guard and draws saber. The adjutant then directs, *Inspect your guard, Sir,* at which the commander of the guard turns about, commands: 1. **Draw,** 2. **SABER,** 3. **Prepare for inspection,** 4. **MARCH,** moves toward and inspects the guard, as in troop inspection. During the inspection the band plays.

The adjutant returns saber, observes the general condition of the guard, and falls out any man who is unfit for guard duty or does not present a creditable appearance. Substitutes will report to the commander of the guard at the guard house.

The adjutant, when so directed, selects orderlies and color sentinels as prescribed in the Manual of Interior Guard Duty and notifies the commander of the guard of his selection. He may require a trooper to move out of the rank and to dis-

mount for a more minute inspection. He also notifies the two senior noncommissioned officers to act as platoon leaders if there has been a division into platoons. If there be a junior officer of the guard, he takes post at the same time as the senior, facing to the front 3 yards in front of the guide of the first platoon, and the senior of the two noncommissioned officers acts and takes post as chief of the second platoon. The junior officer of the guard may be directed by the commander of the guard to assist in inspecting the guard.

860. If there be no officer of the guard the adjutant inspects the guard and during the inspection notifies the senior noncommissioned officer to command the guard and the next two senior noncommissioned officers to serve as platoon leaders. A noncommissioned officer commanding the guard takes the post of the officer of the guard, the next senior noncommissioned officer the post of the junior officer of the guard.

The inspection ended, the adjutant places himself about 30 yards in front of and facing the center of the guard and draws saber. The new officer of the day takes post in front of and facing the guard about 30 yards from the adjutant. The old officer of the day takes post 3 yards to the right of and 1 yard less advanced than the new officer of the day. The commander of the guard takes post 8 yards in front of the right trooper, facing to the front, and draws saber.

The adjutant then commands: 1. **Draw,** 2. **SABER,** 3. **SOUND OFF.**

The band, playing, passes in front of the commander of the guard to the left of the line and back to its post on the right, when it ceases playing.

The adjutant then commands **POSTS,** at which platoon leaders take their posts 3 yards in front of the guides of their platoons, facing to the front, and the commander of the guard takes post 6 yards in front of the leader of the center (right) platoon, facing to the front, and the file closers resume their places 3 yards in rear of the rank. If there be no junior officer of the guard, the commander of the guard takes post 3 yards in front of the center guide.

The commander of the guard and the chiefs of platoon and file closers having taken their posts, the adjutant commands: 1. **Present,** 2. **SABER,** faces toward the officer of the day, salutes, and then reports, ***Sir, the guard is formed.***

The new officer of the day, after the adjutant has reported, salutes with the hand and directs the adjutant, *March the guard in review, Sir.*

861. The adjutant turns about, brings the guard to a carry, and commands: 1. **Platoons right turn,** 2. **MARCH;** 3. **Guard,** 4. **HALT.** The platoons execute the movement as in the troop, the band takes post in front of the column (Par. 806). The adjutant places himself abreast of the first platoon and 6 yards from its left flank; the sergeant major abreast of the second platoon and 6 yards from its left flank. The adjutant then commands: 1. **Pass in review,** 2. **FORWARD,** 3. **MARCH.**

The guard marches at the walk past the officer of the day, according to the principles of squadron review, the adjutant, commander of the guard, chiefs of platoon, sergeant major, and drum major saluting. The new officer of the day returns the salute of the commander of the guard and the adjutant only, making one salute with the hand.

862. The band, having passed the officer of the day, turns to the left out of the column, places itself opposite to and facing him, and continues to play until the guard leaves the parade ground. The buglers detach themselves from the band when the latter turns out of the column and remain in front of the guard, commencing to play when the band ceases. In the absence of the band the buglers do not turn out of the column, but continue to play in front of the guard.

863. The guard having passed 12 yards beyond the officer of the day, the adjutant halts; the sergeant major halts alongside of the adjutant and 1 yard to his left; they then return saber, salute, and retire. The commander of the guard then, without halting, breaks the guard into column of fours and marches it to its post.

864. The officers of the day turn toward each other and salute, the old officer of the day turning over the orders to the new officer of the day.

While the band is sounding off and while the guard is passing in review the officers of the day remain at attention.

865. If the guard be not divided into platoons the adjutant commands: 1. **Guard right turn,** 2. **MARCH;** 3. **Guard,** 4. **HALT,** and it passes in review as explained; the commander of the guard is 3 yards in front of its center guide, the adjutant is

6 yards from the rank and abreast of the commander, the sergeant major covers the adjutant and marches abreast of the rank.

RELIEVING THE OLD GUARD—(FORMAL GUARD MOUNTING, MOUNTED.)

866. As the new guard approaches the guardhouse the old guard is formed in line at the carry saber, its buglers 3 yards to its right; when the buglers at the head of the new guard arrive opposite the left of the old guard its commander commands: 1. **Present**, 2. **SABER**; both commanders salute and, when the new guard has passed the commander of the old guard, the latter commands: 1. **Carry**, 2. **SABER.** The buglers and guard continue marching without changing direction until the rear of the column has passed 9 yards beyond the buglers of the old guard, when the commander of the new guard commands: 1. **Fours right**, 2. **MARCH.**

867. The buglers and guard are marched 3 yards in rear of the line of the old guard, when the commander of the new guard commands: 1. **Fours right about**, 2. **MARCH**; 3. **Guard**, 4. **HALT**; 5. **DRESS**; he then, facing to the front, aligns his guard so as to be on a line with the old guard and commands, **Front**; the buglers of the new guard are 3 yards to the right of the rank.

868. The new guard being dressed, the commander of each guard, in front of and facing its center, commands: 1. **Present**, 2. **SABER**, resumes his front, salutes, resumes the carry, faces his guard, and commands: 1. **Carry**, 2. **SABER.**

Each guard is then presented by its commander to its officer of the day; if there be but one officer of the day present, or if an officer acts in the capacity of old and new officer of the day, each guard is presented to him by its commander.

869. If another person entitled to a salute approaches, each commander of the guard brings his own guard to attention if not already at attention. The senior commander of the two guards then commands: 1. **Old and new guards**, 2. **Present**, 3. **SABER.** The junior will salute at the command "Present, Saber," given by the senior. After the salute has been acknowledged the senior brings both guards to the "Carry, Saber."

870. After the salutes have been acknowledged by the officers of the day, each guard returns saber by command of its own officer of the guard; the commander of the new guard then directs the orderly or orderlies to fall out and report.

871. The commander of the new guard then falls out members of the guard for detached posts, placing them under charge of the proper noncommissioned officer, divides the guard into three reliefs, *first*, *second*, and *third*, from right to left, and directs a list of the guard to be made by reliefs. The sentinels and detachments of the old guard are at once relieved by members of the new guard, the two guards standing at ease or dismounted while these changes are being made. The commander of the old transmits to the commander of the new guard all his orders, instructions, and information concerning the guard and its duties.

872. The commander of the new guard then has his own guard fall out, takes possession of the guardhouse and verifies the articles in charge of the guard.

873. If considerable time is required to bring in that portion of the old guard still on post, the commanding officer may direct that as soon as the orders and property are turned over to the new guard the portion of the old guard at the guardhouse may be marched off and dismissed. In such case the remaining detachments of the old guard will be inspected by the commander of the new guard when they reach the guardhouse. He will direct the senior noncommissioned officer present to march these detachments off and dismiss them in the prescribed manner.

874. In bad weather, at night, or after long marches the music may be omitted, or the buglers may take the place of the band and sound off standing on the right of the guard and the march in review be omitted.

In cases in which an organization, entire or in part, is detailed for guard, it is marched to the parade ground as a single detail (Par. 858.)

875. For detailed instructions for guards and sentinels see Manual of Interior Guard Duty.

FORMAL GUARD MOUNTING, DISMOUNTED.

876. Guard mounting, dismounted, and relieving the old guard are conducted on the same principles as when mounted, with the following modifications:

(*a*) The men designated for guard fall in, dismounted, on their troop parade grounds; noncommissioned officers not commanding detail, 2 paces in rear of rank.

(*b*) The detail that is to be on the right is marched to the line so that upon halting the breast of the man on the right shall be near to and opposite the left arm of the sergeant major. At the command **DRESS**, the detail dresses up to the line of the sergeant major and its commander, the man on the right placing his breast against the left arm of the sergeant major.

(*c*) When the last detail has formed, the sergeant major takes a side step to the right, draws saber if armed with one, verifies the detail, takes post 2 paces to the right and 2 paces to the front of the guard, facing to the left and causes the guard to count fours.

(*d*) When the sergeant major has reported, the officer of the guard takes post 3 paces in front of the center of the guard, *draws saber* and *orders saber*, the guard being at order arms.

The inspection which corresponds to that of par. 882 being ended, and the officers of the day, the adjutant, and the commander of the guard having taken their posts, the commander of the guard draws saber with the adjutant and comes to the order.

The adjutant then commands: 1. **Parade**, 2. **Rest**, 3. **SOUND OFF**, and comes to the *order* and *parade rest*.

(*e*) After the band has sounded off, the adjutant, commander of the guard, and platoon leaders come to attention, and the adjutant commands: 1. **Present**, 2. **ARMS**, faces toward the officer of the day and reports: *Sir, the guard is formed.* The new officer of the day, after the adjutant has reported, returns the salute with the hand and directs the adjutant: *March the guard in review, Sir.* The adjutant carries saber, faces about, brings the guard to an order and commands: 1.

365. The sentinels and detachments of the old guard are at once relieved by members of the new guard, the two guards standing at ease or at rest while these changes are being made. The commander of the old transmits to the commander of the new guard all his orders, instructions, and information concerning the guard and its duties. The commander of the new guard then takes possession of the guardhouse and verifies the articles in charge of the guard.

366. If considerable time is required to bring in that portion of the old guard still on post, the commanding officer may direct that as soon as the orders and property are turned over to the new guard the portion of the old guard at the guardhouse may be marched off and dismissed. In such a case the remaining detachment or detachments of the old guard will be inspected by the commander of the new guard when they reach the guardhouse. He will direct the senior noncommissioned officer present to march these detachments off and dismiss them in the prescribed manner.

367. In bad weather, at night, after long marches, or when the guard is very small, the field music may be dispensed with.

CHAPTER X.

MAP READING AND SKETCHING.

Section 1. Military map reading.

When you pick up a map, the first question is, Where is the north? This can usually be told by an arrow (see fig. 1, p. 259) which will be found in one of the corners of the map, and which points to the true north—the north of the north star.

On some maps no arrow is to be found. The chances are a hundred to one that the north is at the top of the map, as it is on almost all printed maps. But you can only assure yourself of that fact by checking the map with the ground it represents. For instance, if you ascertain that the city of Philadelphia is due east of the city of Columbus, then the Philadelphia-Columbus line on the map is a due east-and-west line, and establishes at once all the other map directions.

Now, the map represents the ground as nearly as it can be represented on a flat piece of paper. If you are standing up, facing the north, your right hand will be in the east, your left in the west, and your back to the south. It is the same with a map; if you look across it in the direction of the arrow—that is, toward its north—your right hand will be toward what is east on the map; your left hand to the west; the south will be at the bottom of the map.

There is another kind of an arrow that sometimes appears on a map. It is like the one in figure 2, page 259, and points not to the true north but to the magnetic north, which is the north of the compass. Though the compass needle, and therefore the arrow that represents it on the map, does not point

Fig. 1.

Fig. 2.

Fig. 5.

Fig. 3.

Fig. 4.

exactly north, the deviation is, from a military point of view, slight, and appreciable error will rarely result through the use of the magnetic instead of the true north in the solution of any military problems.

Should you be curious to know the exact deviation, consult your local surveyor or any civil engineer.

Both arrows may appear on your map. In that case disregard the magnetic arrow unless you are using the map in connection with a compass.

If a map is being used on the ground, the first thing to be done is to put the lines of the map parallel to the real outlines of the ground forms, and roads, fences, railroads, etc., that the map shows; for the making of a map is no more than the drawing on paper of lines parallel to and proportional in length to real directions and distances on the ground.

For instance, the road between two places runs due north and south. Then on the map a line representing the road will be parallel to the arrow showing the north and will be proportional in length to the real road. In this way a map is a picture, or better, a bare outline sketch; and, as we can make out a picture, though it be upside down, or crooked on the wall, so we can use a map that is upside down or not parallel to the real ground forms. But it is easier to make out both the picture and the map if their lines are parallel to what they represent. So in using a map on the ground we always put the lines parallel to the actual features they show. This is easy if the map has an arrow.

If the map has no arrow, you must locate objects or features on the ground, and on the map, their representations. Draw on the map a line connecting any two of the features; place this line parallel to an imaginary line through the two actual features located, and your map will be correctly placed. Look to it that you do not reverse on the map the positions of the two objects or features, or your map will be exactly upside down.

When the map has been turned into the proper position—that is to say, "oriented"—the next thing is to locate on the map your position. If you are in the village of Easton and there is a place on the map labeled Easton, the answer is apparent. But if you are out in the country, at an unlabeled point that looks like any one of a dozen other similar points,

the task is more complicated. In this latter case you must locate and identify, both on the map and on the ground, other points—hills, villages, peculiar bends in rivers, forests—any ground features that have some easily recognizable peculiarity and that you can see from your position.

Suppose, for instance, you were near Leavenworth and wanted to locate your exact position, of which you are uncertain. You have the map shown in this manual, and, looking about, you see southwest from where you stand the United States Penitentiary; also, halfway between the south and the southeast—south-southeast a sailor would say—the reservoir (rectangle west of "O" in "Missouri"). Having oriented your map, draw on it a line from the map position of the reservoir toward its actual position on the ground. Similarly draw a line from the map position of penitentiary toward its actual position. Prolong the two lines until they intersect. The intersection of the lines will mark the place where you stand—south Merritt Hill.

This method consists merely in drawing on the map lines that represent the lines of sight to known and visible places. The lines pass through the map position of the places you see and are parallel to the actual lines of sight; therefore they are the map representations of the lines of sight, and their intersection is the map position of the eye of the observer.

After this orientation and location of position, one can deduce from the map everything there is to know in regard to directions. In this respect, study of the ground itself will show no more than will study of the map.

After "What direction?" comes "How far?" To answer this, one must understand that the map distance between any two points shown bears a fixed and definite relation or proportion to the real distance between the two points.

For instance: We measure on a map and find the distance between two points to be 1 inch. Then we measure the real distance on the ground and find it to be 10,000 inches; hence the relation between the map distance and the real distance is 1 to 10,000, or $\frac{1}{10000}$. Now, if the map is properly drawn, the same relation will hold good for all distances, and we can obtain any ground distance by multiplying by 10,000 the corresponding map distance.

This relation need not be $\frac{1}{10000}$, but may be anything from $\frac{1}{100}$ that an architect might use in making a map or plan of a house up to one over a billion and a half, which is about the proportion between map and real distances in a pocket-atlas representation of the whole world on a 6-inch page. Map makers call this relation the "scale" of the map and put it down in a corner in one of three ways.

For the sake of an illustration, say the relation between map and ground distances is 1 to 100; that is, 1 inch on the map is equal to 100 on the ground. The scale may be written:

First. 1 inch equals 100.

Second. $\frac{1}{100}$.

Third. As shown by figure 3 (p. 259).

These expressions mean one and the same thing. A variation of the first method on a map of different scale might be: 1 inch equals 1 mile. Since a mile contains 63,360 inches, then the real distance between any two points shown on the map is 63,360 times the map distance.

To find the ground distance by the third kind of scale, copy it on the edge of a slip of paper, apply the slip directly to the map, and read off the distance; and so we answer the question, "How far?"

After direction and distance comes the interpretation of the signs, symbols, and abbreviations on the map. Those authorized are given on pages 272 and 273 (a reprint of Appendix 4, Field Service Regulations, 1914); but there are a good many other conventional signs in common use. A key to them is published by the War Department and is called "Conventional Signs, United States Army." From these you read at once the natural and artificial features of the country shown on your map. It should be borne in mind that these conventional signs are not necessarily drawn to scale, as are the distances. They show the position and outline of the features rather than the size. This for the reason that many of the features shown, if drawn to scale, would be so small that one could not make them out except with a magnifying glass. If the exact dimensions are of any importance, they will be written in figures on the map. For instance, bridges.

In addition to the above conventional signs, we have contours to show the elevations, depressions, slope, and shape of

the ground. Abroad, hachures are much used, but they serve only to indicate elevation, and, as compared to contours, are of little value. Contours resemble the lines shown in figure 4 (p. 259).

Hachures are shown in figure 5 (p. 259), and may be found on any European map. They simply show slopes, and, when carefully drawn, show steeper slopes by heavier shading and gentler slopes by the fainter hachures. The crest of the mountain is within the hachures. (See fig. 5, p. 259.)

Contours.—A certain student, when asked by his instructor to define "space," said: "I have it, sir, in my head, but can not put it into words." The instructor replied: "I suppose that under those circumstances, Mr. ———, the definition really would not help much." And so it is with contours—the definition does not help much if you know a contour when you meet it on a map. For examples of contours, turn to the map facing page 274, and, starting at the United States penitentiary, note the smooth, flowing, irregular curved lines marked 880, 860, 840, 840, 860, etc.

The only other lines on the map that at all resemble contours are stream lines, like "Corral Creek," but the stream lines are readily distinguished from contours by the fact that they cross the contours squarely, while the contours run approximately parallel to each other. Note the stream line just to the west of South Merritt Hill.

The contours represent lines on the ground that are horizontal and whose meanderings follow the surface, just as the edge of a flood would follow the irregularities of the hills about it. Those lines that contours stand for are just as level as the water's edge of a lake, but horizontally they wander back and forth to just as great a degree.

The line marked 880, at the penitentiary, passes through on that particular piece of ground every point that is 880 feet above sea level. Should the Missouri River rise in flood to 880 feet, the penitentiary would be on an island, the edge of which is marked by the 880 contour.

Contours show several things; among them the height of the ground they cross. Usually the contour has labeled on it in figures the height above some starting point, called the datum plane—generally sea level. If, with a surveying instrument,

you put in on a piece of ground a lot of stakes, each one of which is exactly the same height above sea level—that is, run a line of levels—then make a map showing the location of the stakes, a line drawn on the map through all the stake positions is a contour and shows the position of all points of that particular height.

On any given map all contours are equally spaced in a vertical direction, and the map shows the location of a great number of points at certain fixed levels. If you know the vertical interval between any two adjacent contours, you know the vertical interval for all the contours on that map, for these intervals on a given map are all the same.

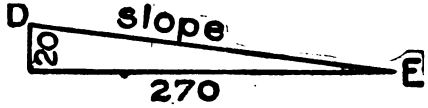
With reference to a point through which no contour passes, we can only say that the point in question is not higher than the next contour up the hill, nor lower than the next one down the hill. For the purposes of any problem, it is usual to assume that the ground slopes evenly between the two adjacent contours and that the vertical height of the point above the lower contour is proportional to its horizontal distance from the contour, as compared to the whole distance between the two contours. For instance, on the map, find the height of point A. The horizontal measurements are as shown on the map. The vertical distance between the contours is 20 feet. A is about one-quarter of the distance between the 800 and the 820 contours, and we assume its height to be one-quarter of 20 feet (5 feet) higher than 800 feet. So the height of A is 805 feet.

The vertical interval is usually indicated in the corner of the map by the letters "V. I." For instance: V. I.=20 feet.

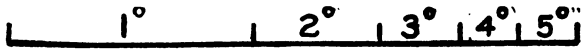
On maps of very small pieces of ground, the V. I. is usually small—perhaps as small as 1 foot; on maps of large areas on a small scale it may be very great—even 1,000 feet.

Contours also show slopes. It has already been explained that from any contour to the next one above it the ground rises a fixed number of feet, according to the vertical interval of that map. From the scale of distances on the map the horizontal distance between any two contours can be found. For example: On the map the horizontal distance between D and E is 90 yards, or 270 feet. The vertical distance is 20 feet, the V. I. of the map. The slope then is

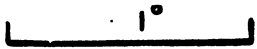
$\frac{20}{270} = \frac{1}{13.5} = 7\frac{1}{2}\% = 4\frac{1}{2}°$, in all of which different ways the slope can be expressed.

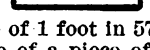


On a good many contoured maps a figure like this will be found in one of the corners:



On that particular map contours separated by the distance



on the vertical scale show a slope of 1°; if separated by the distance 

they show a 2° slope. etc. A slope of 1° is a rise of 1 foot in 57. To use this scale of slopes, copy it on the edge of a piece of paper just as you did the scale of distances and apply it directly to the map.

You will notice that where the contours lie closest the slope is steepest; where they are farthest apart, the ground is most nearly flat.

It has already been set forth how contours show height and slope; in addition to this they show the shape of the ground, or GROUND FORMS. Each single contour shows the shape at its particular level of the hill or valley it outlines; for instance, the 880 contour about the penitentiary shows that the hill at that level has a shape somewhat like a horse's head. Similarly, every contour on the map gives us the form of the ground at its particular level, and knowing these ground forms for many levels we can form a fair conception of what the whole surface is like.

A round contour like the letter O outlines a round ground feature; a long, narrow one indicates a long, narrow ground feature.

Different hills and depressions have different shapes. A good many of them have one shape at one level and another shape at another level, all of which information will be given you by the contours on the map.

One of the ways to see how contours show the shape of the ground is to pour half a bucket of water into a small depression in the ground. The water's edge will be exactly level, and if the depression is approximately round the water's edge will also be approximately round. The outline will look something like figure 6.

Draw roughly on a piece of paper a figure of the same shape and you will have a contour showing the shape of the bit of ground where you poured your water.

Next, with your heel gouge out on one edge of your little pond a small, round bay. The water will rush in and the watermark on the soil will now be shaped something like figure 7.

Alter your drawing accordingly, and the new contour will show the new ground shape.

Again do violence to the face of nature by digging with a stick a narrow inlet opening out of your miniature ocean, and the watermark will now look something like figure 8.

Alter your drawing once more and your contour shows again the new ground form. Drop into your main pond a round clod and you will have a new watermark, like figure 9, to add to your drawing. This new contour, of the same level with the one showing the limit of the depression, shows on the drawing the round island.

Drop in a second clod, this time long and narrow, the watermark will be like figure 10, and the drawing of it, properly placed, will show another island of another shape. Your drawing now will look like figure 11.

It shows a depression approximately round, off which open a round bay and a long, narrow bay. There is also a round elevation and a long, narrow one; a long, narrow ridge, jutting out between the two bays, and a short, broad one across the neck of the round bay.

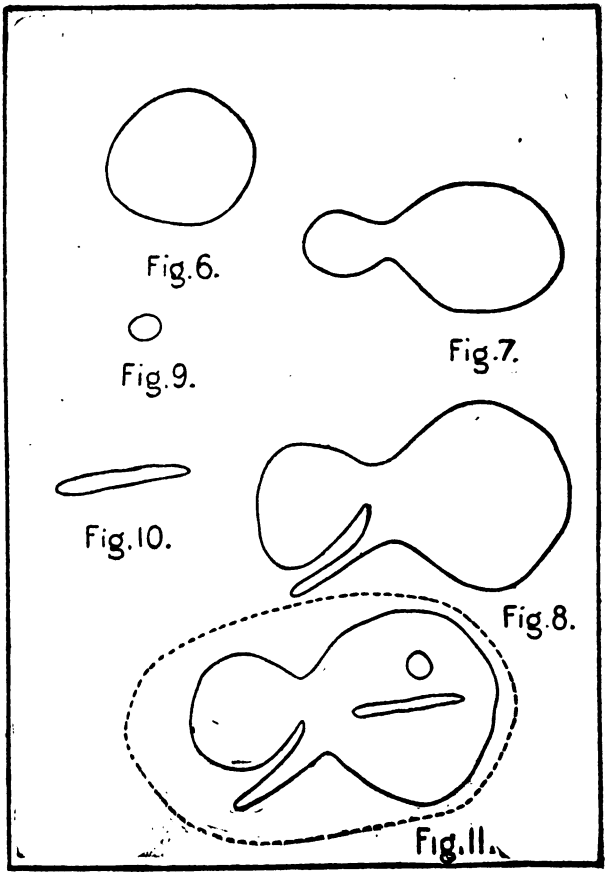


Fig.6.
Fig.7.
Fig.9.
Fig.10.
Fig.8.
Fig.11.

Now flood your lake deeply enough to cover up the features you have introduced. The new water line, about as shown by the dotted line in figure 11, shows the oblong shape of the depression at a higher level; the solid lines show the shape farther down; the horizontal distance between the two con-

Put together the information each of these contours gives you, and you will see how contours show the shape of the ground. On the little map you have drawn you have introduced all the varieties of ground forms there are; therefore all contour forms.

The contours on an ordinary map seem much more complicated, but this is due only to the number of them, their length, and many turns before they finally close on themselves. Or they may close off the paper. But trace each one out, and it will resolve itself into one of the forms shown in figure 11.

Just as the high-tide line around the continents of North and South America runs a long and tortuous course, but finally closes back on itself, so will every contour do likewise. And just as truly as every bend in that high-tide mark turns out around a promontory, or in around a bay, so will every bend in a contour stand for a hill or a valley, pointing to the lowlands if it be a hill, and to the height if it mark a valley.

If the map embrace a whole continent or an island, all the contours will be of closed form, as in figure 11, but if it embrace only a part of the continent or island, some of the contours will be chopped off at the edge of the map, and we have the open form of contours, as we would have if figure 11 were cut into two parts.

The closed form may indicate a hill or a basin; the open form, a ridge or a valley; sometimes a casual glance does not indicate which.

Take up, first, the contour of the open type. If the map shows a stream running down the inside of the contour, there is no difficulty in saying at once that the ground feature is a valley; for instance, V, V, V, and the valley of Corral Creek on the map. But if there is no stream line, does the contour bend show a valley or a ridge?

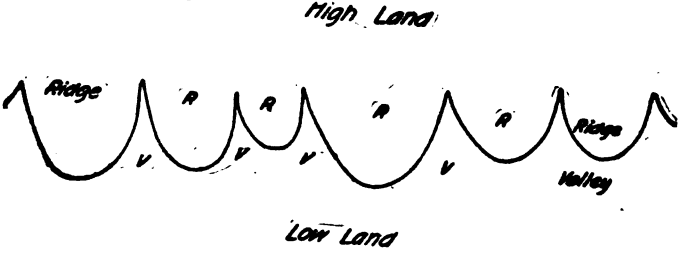
First of all, there is a radical difference between the bend of a contour round the head of a valley and its bend round the nose of a ridge.

Compare on the map the valleys V and the ridges R. The bend of the contour round the head of the valley is much sharper than the bend of the contour round the nose of the ridge. This is a general truth, not only in regard to maps, but also in regard to ground forms. Study any piece of open ground and note how much wider are the ridges than the valleys. Where you find a "hog back" or "devil's backbone," you have an exception to the rule, but the exceptions are not frequent enough to worry over.

To tell whether a given point is on a ridge or in a valley, start from the nearest stream shown on the map and work across the map to the undertermined point, keeping in mind that in a real trip across the country you start from the stream, go up the hill to the top of a ridge, down the other side of the hill to a watercourse, then up a hill to the top of a ridge, down again, up again, etc. That is all traveling is—valley, hill, valley, hill, valley, etc., though you wander till the crack o' doom. And so your map travels must go—valley, hill, valley, hill—till you run off the map or come back to the starting point.

On the map, follow the R–V line, V indicating valley and R ridge or hill. Note first the difference in sharpness in the contour bends; also how the valley contours point to the highland and the ridge contours to the lowland.

The contours go thus:



The streams flow down the valleys, and the sharp angle of the contour points always *up* stream. Note also how the junction of a stream and its tributary usually makes an angle that points *down* stream.

"Which way does this stream run?"

Water flows down hill. If you are in the bed of a stream, contours representing higher ground must be to your right and to your left. Get the elevations of these contours. Generally the nearest contour to the bank of the stream will cross the stream, and there will be an angle or sharp turn in the contour at this crossing. If the point of the angle or sharp turn is toward you, you are going downstream; if away from you, you are going upstream.

If the contours are numbered, you have only to look at the numbers to say where the low and where the high places are; but to read a map with any speed one must be quite independent of these numbers. In ordinary map reading look, first of all, for the stream lines. The streams are the skeleton upon which the whole map is hung. Then pick out the hilltops and ridges, and you have a body to clothe with all the details that will be revealed by a close and careful study of what the map maker has recorded.

As to closed contours, they may outline a depression or a hill. On the map "881" or "885" might be hills or ponds, as far as their shape is concerned. But, clearly, they are hills, for on either side are small streams running *away* from them. If they were ponds, the stream lines would run *toward* the closed contours. The test of "hill, valley, hill," will always solve the problem when there are not enough stream lines shown to make evident at once whether a closed contour marks a pond or a hill. Look in the beginning for the stream lines and valleys, and, by contrast, if for no other reason, the hills and ridges at once loom up.

To illustrate the subject of contours to aid those who have difficulty in reading contoured maps the following is suggested:

1. Secure modeling clay and build a mound.

2. Use wire and slice this mound horizontally at equal vertical intervals into zones; then insert vertical dowels through the mound of clay.

3. Remove the top zone, place on paper, and draw outline of the bottom edge. Trim your paper roughly to the outline drawn. Indicate where the holes made by the dowels pierce the paper.

4. Do the above with each zone of your mound.

5. Place these papers in proper order on dowels similarly placed to ones in original mound at, say, 1 inch vertical interval apart. A skeleton mound results.

6. Replace the zones of the clay mound and form the original clay mound along the side of skeleton mound.

7. Now force all the paper sheets down the dowels onto the bottom sheet, and we have a map of clay mound with contours.

NOTE.—One-inch or 2-inch planks can be made into any desired form by the use of dowels and similar procedure followed.

People frequently ask, "What should I see when I read a map?" and the answer is given, "The ground as it is." This is not true any more than it is true that the words "The valley of the Meuse," bring to your mind vine-clad hills, a noble river, and green fields where cattle graze. Nor can any picture ever put into your thought what the Grand Canyon really is. What printed word or painted picture can not do, a map will not. A map says to you, "Here stands a hill," "Here is a valley," "This stream runs so," and gives you a good many facts in regard to them. But you do not have to "see" anything, any more than you have to visualize Liege in order to learn the facts of its geography. A map sets forth cold facts in an alphabet all its own, but an easy alphabet, and one that tells with a few curving lines more than many thousand words could tell.

Section 2. Sketching.

Noncommissioned officers and selected privates should be able to make simple route sketches. This is particularly useful in patrolling, as thereby a patrol leader is able to give his commander a good idea of the country his patrol has traversed. Sketches should be made on a certain scale, which should be indicated on the sketch, such as 3 inches on the sketch equals 1 mile on the ground. The north should be indicated on the sketch by means of an arrow pointing in that direction. Any piece of paper may be used to make the sketch on. The back of the field-message blank is ruled and prepared for this purpose. The abbreviations and conventional signs shown on the following pages should be used in making such simple sketches.

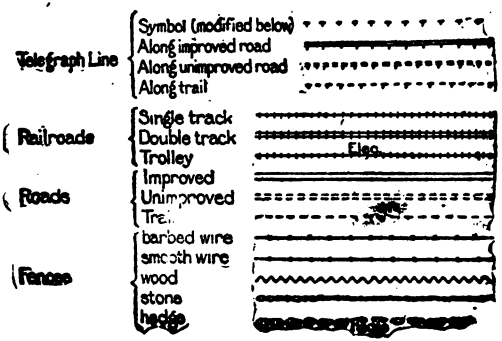
Field Maps and Sketches.

The following abbreviations and signs are authorized for use on field maps and sketches. For more elaborate map work the authorized conventional signs as given in the manual of "Conventional Signs, United States Army Maps," are used. Abbreviations other than those given should not be used.

ABBREVIATIONS.

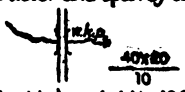
A.	Arroyo.	G. S.	General Store.	Pt.	Point.
abut.	Abutment.	gir.	Girder.	q.p.	Queen-post.
Ar.	Arch.	G. M.	Gristmill.	R.	River.
b.	Brick.	I.	Iron.	R. H.	Roundhouse.
B. S.	Blacksmith Shop.	I.	Island.	R. R.	Railroad.
bot.	Bottom.	Jc.	Junction.	S.	South.
Br.	Branch.	k.p.	King-post.	s.	Steel.
br.	Bridge.	L.	Lake.	S. H.	Schoolhouse.
C.	Cape.	Lat.	Latitude.	S. M.	Sawmill.
cem.	Cemetery.	Ldg.	Landing.	Sta.	Station.
con.	Concrete.	L. S. S.	Life-Saving Station.	st.	Stone.
cov.	Covered.	L. H.	Lighthouse	str.	Stream.
Cr.	Creek.	Long.	Longitude.	T. G.	Tollgate.
d.	Deep.	Mt.	Mountain.	Tres.	Trestle.
cul.	Culvert.	Mts.	Mountains.	tr.	Truss.
D. S.	Drug Store.	N.	North.	W. T.	Water Tank.
E.	East.	n. f.	Not fordable.	W. W.	Water Works.
Est.	Estuary.	P.	Pier.	W.	West.
f.	Fordable.	pk.	Plank.	w.	Wood.
Ft.	Fort.	P. O.	Post Office	wd.	Wide.

SIGNS—FIELD MAPS AND SKETCHES.



Bridge

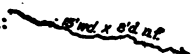
Indicate character and span by abbreviations.

Example: 

Meaning wooden king post bridge, 40 feet long, 20 feet wide, and 10 feet above the water.

Streams

Indicate character by abbreviations.

Example: 

Meaning a stream 15 feet wide, 8 feet deep, and not fordable.

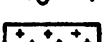
House ▪ Church ♁ School house S.H.

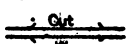
Woods

Orchards Cultivated Land Cult.

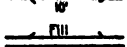
If boundary lines are fences they are indicated as such.

Brush, crops or grass, important as cover or forage

Cemetery  Trees, isolated

Cut and fill — 

cut 10 feet deep



fill 10 feet high

1073
1065
1054
800
1055
Atchison
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FRANCOCK
162
I S S O
TRUE NORTH
MAG. NORTH
1909
1
1 Mile.
2000 Yards.

366°—17. (To fac

CHAPTER XI.

MESSAGE BLANKS.

U. S. ARMY FIELD MESSAGE.	No.	Sent by.	Time.	Rec'd by.	Time.	Check.
	(Those spaces for Signal Operators only.)					

Communicated by **Buzzer, Phone, Telegraph, Wireless, Lantern, Hello, Flag, Cyclist, Foot Messenger, Mounted Messenger, Motor Car, Flying Machine.**
Underscore means used.

[Name of sending detachment.]

*From*_____
[Location of sending detachment.]

*At*_____

*Date*_____ *Hour*_____ *No*_____

*To*_____

*Received*_____

The heading "From" is filled in with the *name* of the detachment sending the information: as "Officer's Patrol, 7th Cav." Messages sent on the same day from the same source to the same person are numbered consecutively. The address is written briefly, thus: "Commanding officer, Outpost, 1st Brigade." In the signature the writer's surname only and rank are given.

This blank is four and a half by six and three-quarters inches, including the margin on the left for binding. The back is ruled in squares, the side of each square representing 100 yards on a scale of 3 inches to one mile, for use in making simple sketches explanatory of the message. It is issued by the Signal Corps in blocks of forty with duplicating sheets. The regulation envelope is three by five and one-fourth inches and is printed as follows:

UNITED STATES ARMY FIELD MESSAGE.

*To*_____ *No*_____
(For signal operator only.)

*When sent*_____ *No*_____
*Rate of speed*_____
*Name of messenger*_____
*When and by whom rec'd*_____

This Envelope will be Returned to Bearer.

CHAPTER XII.

SIGNALS AND CODES.

(Extracts from Signal Book, United States Army, 1916.)

General Instructions for Army Signaling.

1. Each signal station will have its call, consisting of one or two letters, as Washington, "W"; and each operator or signalist will also have his personal signal of one or two letters, as Jones, "Jo." These being once adopted will not be changed without due authority.

2. To lessen liability of error, numerals which occur in the body of a message should be spelled out.

3. In receiving a message the man at the telescope should call out each letter as received, and not wait for the completion of a word.

4. A record of the date and time of the receipt or transmission of every message must be kept.

5. The duplicate manuscript of messages received at, or the original sent from, a station should be carefully filed.

6. In receiving messages nothing should be taken for granted, and nothing considered as seen until it has been positively and clearly in view. Do not anticipate what will follow from signals already given. Watch the communicating station until the last signals are made, and be very certain that the signal for the end of the message has been given.

7. Every address must contain at least two words and should be sufficient to secure delivery.

8. All that the sender writes for transmission after the word "To" is counted.

9. Whenever more than one signature is attached to a message count all initials and names as a part of the message.

10. Dictionary words, initial letters, surnames of persons, names of cities, towns, villages, States, and Territories, or names of the Canadian Provinces will be counted each as one word; e. g., New York, District of Columbia, East St. Louis should each be counted as one word. The abbreviation of the names of cities, towns, villages, States, Territories, and provinces will be counted the same as if written in full.

11. Abbreviations of weights and measures in common use, figures, decimal points, bars of division, and in ordinal numbers the affixes "st," "d," "nd," "rd," and "th" will be each counted as one word. Letters and groups of letters, when such groups do not form dictionary words and are not combinations of dictinary words, will be counted at the rate of five letters or fraction of five letters to a word. When such groups are made up of combinations of dictionary words, each dictionary word so used will be counted.

12. The following are exceptions to paragraph 55, and are counted as shown:

A. M.	1 word
P. M.	1 word
O. K.	1 word
Per cent	1 word

13. No message will be considered sent until its receipt has been acknowledged by the receiving station.

The International Morse or General Service Code.

18. The International Morse Code is the General Service Code and is prescribed for use by the Army of the United States and between the Army and the Navy of the United States. It will be used on radio systems, submarine cables using siphon recorders, and with the heliograph, flash-lanterns, and all visual signaling apparatus using the wigwag.

Alphabet.

Numerals.

Punctuation.

Period	• • • • • •
Comma	• — • — • —
Interrogation	• • — — • •
Hyphen or dash	— • • • —
Parenthesis (before and after the words)	— • — — • —
Quotation mark (beginning and ending)	• — • • — •
Exclamation	— — • — • —
Apostrophe	• — — — — •
Semicolon	— • — • — •
Colon	— — — • • •
Bar indicating fraction	— • • — •
Underline (before and after the word or words it is wished to underline)	• • — — • —
Double dash (between preamble and address, between address and body of message, between body of message and signature, and immediately before a fraction)	— • • • —
Cross	• — • — •

Visual Signaling in General.

21. Methods of visual signaling are divided as follows:

(*a*) By flag, torch, hand lantern, or beam of searchlight (without shutter.) (General Service Code.)

(*b*) By heliograph, flash lantern, or searchlight (with shutter.) (General Service Code.)

(*c*) By Ardois. (General Service Code.)

(*d*) By hand flags or by stationary semaphore. (Two-arm semaphore Code.)

(*e*) By preconcerted signals with Coston lights, rockets, bombs, Very pistols, small arms, guns, etc.

(*f*) By flag signals by permanent hoists. (International Code.)

22. The following conventional signals, with exceptions noted, will be used in the first four classes.

		Exceptions. Ardois and semaphore.
End of word.	Interval.	
End of sentence.	Double interval.	
End of message.	Triple interval.	
Signal separating preamble from address; address from text; text from signature.	—···—	Double interval, signature preceded also by "Sig." Interval.
Acknowledgement.	R.	
Error.	·····	A.
Negative.	K.	
Preparatory.	L.	
Annulling.	N.	
Affirmative.	P.	
Interrogatory.	··——··	O.
Repeat after word.	Interrogatory. A (word).	
Repeat last message.	Interrogatory three times.	
Send faster.	QRQ	
Send slower.	QRS	
Cease sending.	QRT	
Wait a moment.	·—···	None.
Execute.	IX, IX	
Move to your right.	MR	
Move to your left.	ML	
Move up.	MU	
Move down.	MD	
Finished (end of work).	···—·—	None.

Visual Signaling: By Flag (Wig-Wag), Torch, Hand Lantern, or Beam or Searchlight (Without Shutter).

GENERAL SERVICE CODE.

23. For the flag used with the General Service Code there are three motions and one position. The position is with the flag held vertically, the signalman facing directly toward the

station with which it is desired to communicate. The first motion (the dot) is to the right of the sender, and will embrace an arc of 90°, starting with the vertical and returning to it, and will be made in a plane at right angles to the line connecting the two stations. The second motion (the dash) is a similar motion to the left of the sender. The third motion (front) is downward directly in front of the sender and instantly returned upward to the first position. Front is used to indicate an interval.

24. The beam of the searchlight, though ordinarily used with the shutter like the heliograph, may be used for long-distance signaling, when no shutter is suitable or available, in a similar manner to the flag or torch, the first position being a vertical one. A movement of the beam 90° to the right of the sender indicates a dot, a similar movement to the left indicates a dash; the beam is lowered vertically for front.

25. To use the torch or hand lantern, a footlight must be employed as a point of reference to the motion. The lantern is most conveniently swung out upward to the right of the footlight for a dot, to the left for a dash, and raised vertically for front.

NOTE.—To call a station, make the call letter until acknowledged, at intervals giving the call or signal of the calling station. If the call letter of a station is unknown, wave flag until acknowledged. In using the searchlight without shutter throw the beam in a vertical position and move it through an arc of 180° in a plane at right angles to the line connecting the two stations until acknowledged. To acknowledge a call, signal "Acknowledgment" followed by the call letter of the acknowledging station.

Signaling with Heliograph, Flash Lantern, and Searchlight (With Shutter.)

GENERAL SERVICE CODE.

26. The first position is to turn a steady flash on the receiving station. The signals are made by short and long flashes. Use a short flash for dot and a long steady flash for dash.

The elements of a letter should be slightly longer than in sound signals.

27. To call a station, make its call letter until acknowledged.

28. If the call letter of a station be unknown, signal A until acknowledged. Each station will then turn on a steady flash and adjust. When adjustment is satisfactory to the called station, it will cut off its flash and the calling station will proceed with its message.

29. If the receiver sees that the sender's mirror or light needs adjustment, he will turn on a steady flash until answered by a steady flash. When the adjustment is satisfactory the receiver will cut off his flash and the sender will resume his message.

30. To break the sending station for other purposes, turn on a steady flash.

SOUND SIGNALS.

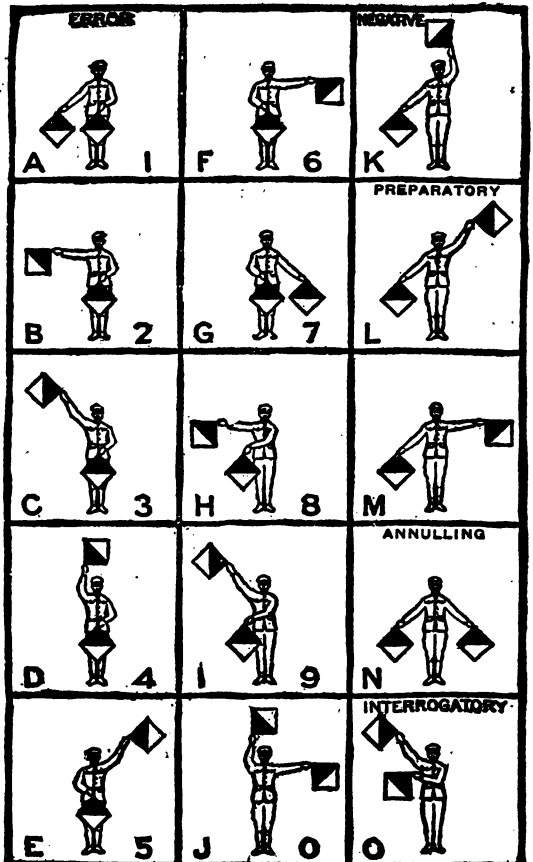
56. Sound signals made by the whistle, foghorn, bugle, trumpet, and drum may well be used in a fog, mist, falling snow, or at night. They may be used with the dot and dash code.

In applying the General Service Code to whistle, foghorn, bugle, or trumpet, one short blast indicates a dot and one long blast a dash. With the drum, one tap indicates a dot and two taps in rapid succession a dash. Although these signals can be used with a dot and dash code, they should be so used in connection with a preconcerted or conventional code.

Signaling by Two-Arm Semaphore.

HAND FLAGS.

43. Signaling by the two-arm semaphore is the most rapid method of sending spelled-out messages. It is, however, very liable to error if the motions are slurred over or run together in an attempt to make speed. Both arms should move rapidly and simultaneously, but there should be a perceptible pause at the end of each letter before making the movements for the next letter. Rapidity is secondary to accuracy. For alphabet see pages following.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F 6
NEGATIVE
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INTERROGATORY
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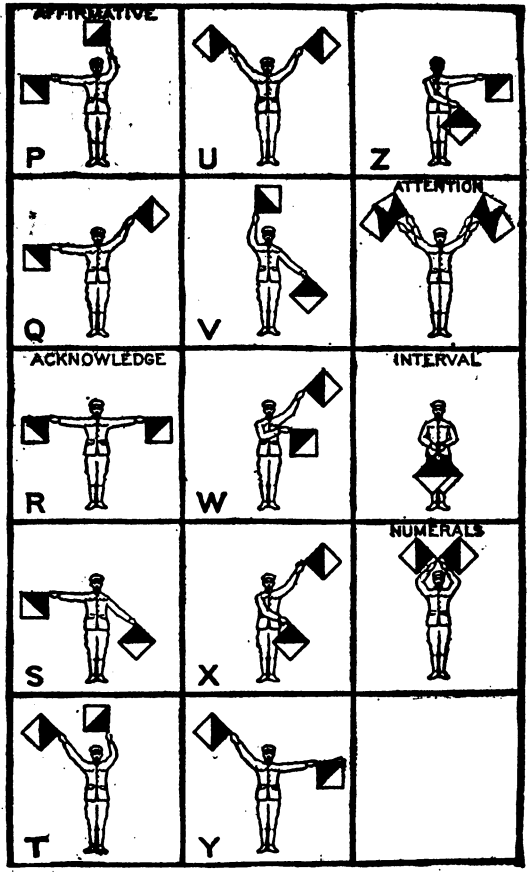
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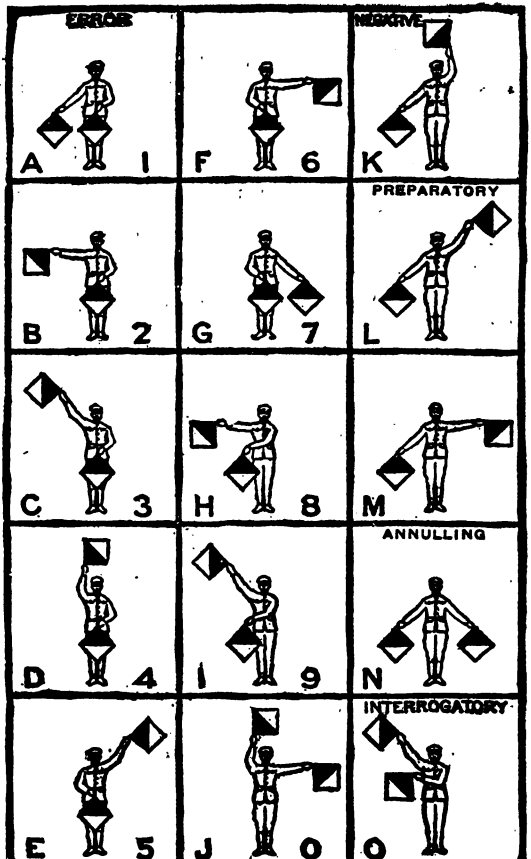
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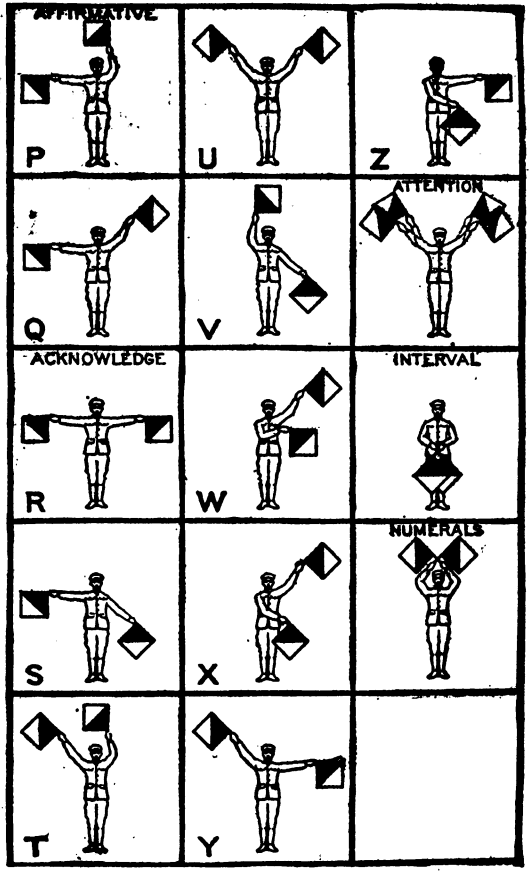
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FIELD ARTILLERY.

49. For use with General Service Code or semaphore hand flags.

.....—Error. (All methods but Ardois and semaphore.)
A—Error. (Ardois and semaphore only.)
AD—Additional.
AKT—Draw ammunition from combat train.
AL—Draw ammunition from limbers.
AM—Ammunition going forward.
AMC—At my command.
AP—Aiming point.
B (numerals)—Battery (so many) rounds.
BS (numerals)—(Such.) Battalion station.
BL—Battery from the left.
BR—Battery from the right.
CCC—Charge (mandatory at all times). Am about to charge if not instructed to contrary.
CF—Cease firing.
CS—Close station.
CT—Change target.
D—Down.
DF—Deflection.
DT—Double time. Rush. Hurry.
F—Commence firing.
FCL (numerals)—On 1st piece close by (so much).
FI—Artillery fire is causing us losses.
FOP (numerals)—On 1st piece open by (so much).
G—Move forward. Preparing to move forward.
HHH—Halt. Action suspended.
IX—Execute. Go ahead. Transmit.
JI—Report firing data.
K—Negative. No.
KR—Corrector.
L—Preparatory. Attention.
LCL (numerals)—On 4th piece close by (so much).
LOP (numerals)—On 4th piece open by (so much).
LT—Left.
LL—Left from the left.
LR—Left from the right.
LE (numerals)—Less (so much).
MD—Move down.
ML—Move to your left.
MR—Move to your right.
MU—Move up.
MO (numerals)—Move (so much).
N—Annul, cancel.
O—What is the (R. N., etc.)? Interrogatory. (Ardois and semaphore only.)

. . — — . .—What is the (R. N., etc.)? Interrogatory. (All methods but Ardois and semaphore.)
P—Affirmative. Yes.
PS.—Percussion. Shrapnel.
QRQ—Send faster.
QRS—Send slower.
QRT—Cease sending.
R—Acknowledgment. Received.
RS—Regimental station.
RL—Right from the left.
RR—Right from the right.
RN—Range.
RT—Right.
S—Subtract.
SCL (numerals)—On 2d piece close by (so much).
SOP (numerals)—On 2d piece open by (so much).
SH—Shell.
SI—Site.
SSS—Support needed.
T—Target.
TCL (numerals)—On 3d piece close by (so much).
TOP (numerals)—On 3d piece open by (so much).
U—Up.
? (letter)—Such battery station.

CHAPTER XIII.

FIRST-AID RULES.

The bandages and dressings contained in the first-aid packet have been so treated as to destroy any germs thereon. Therefore, when dressing a wound, be careful not to touch or handle that part of the dressing which is to be applied to the wound.

A sick or injured person should always be made to lie down on his back, if practicable, as this is the most comfortable position, and all muscles may be relaxed.

All tight articles of clothing and equipment should be loosened, so as not to interfere with breathing or the circulation of the blood. Belts, collars, and the trousers at the waist should be opened.

Don't let mere onlookers crowd about the patient. They prevent him from getting fresh air and also make him nervous and excited.

In case of injury the heart action is generally weak from shock, and the body, therefore, grows somewhat cold. So don't remove any more clothing than is necessary to expose the injury.

Cut or rip the clothing, but don't pull it. Try to disturb the patient as little as possible.

Don't touch a wound with your fingers or a handkerchief, or with anything else but the first-aid dressing. Don't wash the wound with water, as you may infect it.

Don't administer stimulants (whisky, brandy, wine, etc.) unless ordered to do so by a doctor. While in a few cases stimulants are of benefit, in a great many cases they do positive harm, especially where there has been any bleeding.

The heart may be considered as a pump and the arteries as a rubber hose, which carry the blood from the heart to every part of the body. The veins are the hose which carry the blood back to the heart. Every wound bleeds some, but, unless a large artery or a large vein is cut, the bleeding will stop

after a short while if the patient is kept quiet and the first-aid dressing is bound over the wound so as to make pressure on it.

When a large artery is cut the blood gushes out in spurts every time the heart beats. In this case it is necessary to stop the flow of blood by pressing upon the hose somewhere between the heart and the leak.

If the leak is in the arm or hand, apply pressure as in figure 1.

FIG. 1.

If the leak is in the leg, apply pressure as in figure 2.

If the leak is in the shoulder or armpit, apply pressure as in figure 3.

The reason for this is that at the places indicated the arteries may be pressed against a bone more easily than at any other places.

Another way of applying pressure (by means of a tourniquet) is shown in figure 4. Place a pad of tightly rolled cloth or paper, or any suitable object, over the artery. Tie a bandage loosely about the limb and then insert your bayonet, or a

stick, and twist up the bandage until the pressure of the pad on the artery stops the leak. Twist the bandage slowly and stop as soon as the blood ceases to flow, in order not to bruise the flesh or muscles unnecessarily.

A tourniquet may cause pain and swelling of the limb, and if left on too long may cause the limb to die. Therefore,

FIG. 2.

about every half hour or so loosen the bandage very carefully, but if the bleeding continues pressure must be applied again. In this case apply the pressure with the thumb for five or ten minutes, as this cuts off only the main artery and leaves some of the smaller arteries and the veins free to restore some of the circulation. When a tourniquet is painful it is too tight and should be carefully loosened a little.

If the leg or arm is held upright, this also helps to reduce the bleeding in these parts, because the heart then has to pump the blood uphill.

A broken bone is called a fracture. The great danger in the case of a fracture is that the sharp, jagged edges of the bones may stick through the flesh and skin, or tear and bruise the arteries, veins, and muscles. If the skin is not broken, a fracture is not so serious, as no germs can get in. **Therefore never move a person with a broken bone until the fracture has been so fixed that the broken ends of the bone can not move.**

FIG. 3.

If the leg or arm is broken, straighten the limb gently and if necessary pull upon the end firmly to get the bones in place. Then bind the limb firmly to a splint to hold it in place. A splint may be made of any straight, stiff material—a shingle or piece of board, a bayonet, a rifle, a straight branch of a tree, etc. Whatever material you use must be well padded on the side next to the limb. Be careful never to place the bandages over the fracture, but always above and below. (Figs. 5, 6, 7, 8.)

Many surgeons think that the method of binding a broken leg to the well one, and of binding the arm to the body, is

the best plan in the field as being the quickest and one that serves the immediate purpose.

FIG. 4.—Improvised tourniquet.

With wounds about the body, the chest, and abdomen you must not meddle except to protect them when possible, without much handling, with the materials of the packet.

FAINTING, SHOCK, HEAT EXHAUSTION.

The symptoms of fainting, shock, and heat exhaustion are very similar. The face is pale, the skin cool and moist, the

pulse is weak, and generally the patient is unconscious. Keep the patient quiet, resting on his back, with his head low. Loosen the clothing, but keep the patient warm, and give stimulants (whisky, hot coffee, tea, etc.).

SUNSTROKE.

In the case of sunstroke the face is flushed, the skin is dry and very hot, and the pulse is full and strong. In this case

FIG 5.

FIG. 6.

place the patient in a cool spot, remove the clothing, and make every effort to lessen the heat in the body by cold applications to the head and surface generally. Do not, under any circumstances, give any stimulants or hot drinks.

FREEZING AND FROSTBITE.

The part frozen, which looks white or bluish white, and is cold, should be very slowly raised in temperature by brisk but careful rubbing in a cool place, and never near a fire. Stimulants are to be given cautiously when the patient can

swallow, and followed by small amounts of warm liquid nourishment. The object is to restore the circulation of the blood and the natural warmth gradually and not violently. Care and patience are necessary to do this.

FIG. 7.

FIG. 8.

RESUSCITATION OF THE APPARENTLY DROWNED.

In the instruction of the Army in First Aid the method of resuscitation of the apparently drowned, as described by "Schaefer," will be taught instead of the "Sylvester Method," heretofore used. The Schaefer method of artificial respiration is also applicable in cases of electric shock, asphyxiation by gas, and of the failure of respiration following concussion of the brain.

Being under water for four or five minutes is generally fatal, but an effort to revive the apparently drowned should always be made, unless it is known that the body has been under water for a very long time. The attempt to revive the patient should not be delayed for the purpose of removing his clothes or placing him in the ambulance. Begin the procedure as soon as he is out of the water, on the shore or in the boat. The first and most important thing is to start artificial respiration without delay.

The Schaefer method is preferred because it can be carried out by one person without assistance, and because its procedure is not exhausting to the operator, thus permitting him, if required, to continue it for one or two hours. When it is known that a person has been under water for but a few minutes continue the artificial respiration for at least one and a half to two hours before considering the case hopeless. Once the patient has begun to breathe watch carefully to see that he does not stop again. Should the breathing be very faint, or should he stop breathing, assist him again with artificial respiration. After he starts breathing do not lift him nor permit him to stand until the breathing has become full and regular.

SCHAEFER METHOD.

As soon as the patient is removed from the water, turn him face to the ground, clasp your hands under his waist, and raise the body so any water may drain out of the air passages while the head remains low. (Figure 9.)

The patient is laid on his stomach, arms extended from his body beyond his head, face turned to one side so that the mouth and nose do not touch the ground. This position causes

The operator kneels, straddles one or both of the patient's thighs, and faces his head. Locating the lowest rib, the operator, with his thumbs nearly parallel to his fingers, places his hands so that the little finger curls over the twelfth rib. If the hands are on the pelvic bones, the object of the work is defeated; hence the bones of the pelvis are first located in order to avoid them. The hands must be free from the pelvis and resting on the lowest rib. By operating on the bare back it is easier to locate the lower ribs and avoid the pelvis. The nearer the ends of the ribs the hands are placed without sliding off the better. The hands are thus removed from the spine, the fingers being nearly out of sight.

The fingers help some, but the chief pressure is exerted by the heels (thenar and hypothenar eminences) of the hands, with the weight coming straight from the shoulders. It is a waste of energy to bend the arms at the elbows and shove in from the sides, because the muscles of the back are stronger than the muscles of the arms.

The operator's arms are held straight, and his weight is brought from his shoulders by bringing his body and shoulders forward. This weight is gradually increased until at the end of the three seconds of vertical pressure upon the lower ribs of the patient the force is felt to be heavy enough to compress the parts; then the weight is suddenly removed. If there is danger of not returning the hands to the right position again, they can remain lightly in place; but it is usually better to remove the hands entirely. If the operator is light and the patient an overweight adult, he can utilize over 80 per cent of his weight by raising his knees from the ground and supporting himself entirely on his toes and the heels of his hands, the latter properly placed on the ends of the floating ribs of the patient. In this manner he can work as effectively as a heavy man.

A light feather or a piece of absorbent cotton drawn out thin and held near the nose by some one will indicate by its movements whether or not there is a current of air going and coming with each forced expiration and spontaneous inspiration.

The natural rate of breathing is 12 to 15 times per minute. The rate of operation should not exceed this. The lungs must be thoroughly emptied by three seconds of pressure, then re-

filling takes care of itself. Pressure and release of pressure—one complete respiration—occupies about five seconds. If the operator is alone, he can be guided in each act by his own deep, regular respiration or by counting or by his watch lying by his side. If comrades are present, be can be advised by them.

The duration of the efforts as artificial respiration should ordinarily exceed an hour; indefinitely longer if there are any evidences of returning animation, by way of breathing, speaking, or movements. There are liable to be evidences of life within 25 minutes in patients who will recover from electric shock, but where there is doubt the patient should be given the benefit of the doubt. In drowning, especially, recoveries are on record after two hours or more of unconsciousness; hence, the Schaefer method, being easy of operation, is more likely to be persisted in.

Aromatic spirits of ammonia may be poured on a handkerchief and held continuously within 3 inches of the face and nose. If other ammonia preparations are used, they should be diluted or held farther away. Try it on your own nose first.

When the operator is a heavy man it is necessary to caution him not to bring force too violently upon the ribs, as one of them might be broken.

Do not attempt to give liquids of any kind to the patient while unconscious. Apply warm blankets and hot-water bottles as soon as they can be obtained.

CHAPTER XIV.

LAWS AND REGULATIONS.

Section 1. General provisions.

The Army of the United States is governed by certain laws called "The Articles of War" and certain regulations called "Army Regulations."

The following list includes the offenses most often committed by soldiers, generally through ignorance or carelessness rather than viciousness. Violations of any rule or regulation should be carefully guarded against, since they not only subject the offender to punishment, but also bring discredit on his comrades, his organization, and on the military profession:

1. Selling, pawning, or, through neglect, losing or spoiling any Government property, such as uniforms, blankets, equipment, ammunition, etc.
2. Disobedience of the orders of any officer or noncommissioned officer.
3. Disrespect to an officer or noncommissioned officer.
4. Absence from camp without leave.
5. Absence from any drill, formation, or other duty without authority.
6. Drunkenness on duty or off duty, whether in camp or when absent either with or without leave.
7. Bringing liquor into camp.
8. Noisy or disorderly conduct in camp or when absent either with or without leave.
9. Entering on private property, generally for the purpose of stealing fruit, etc.

10. Negligence or carelessness at drill or on other duty, particularly while on guard or as a sentinel over prisoners.
11. Wearing an unauthorized uniform or wearing the uniform in an improper manner.
12. Urinating in or around camp.
13. Failing to salute properly.
14. Disrespect or affront to a sentinel.
15. Abuse or neglect of his horse.

"The basic principles of the combat tactics of the different arms are set forth in the Drill Regulations of those arms for units as high as brigades." (*Preface, Field Service Regulations.*)

"The Drill Regulations are furnished as a guide. They provide the principles for training and for increasing the probability of success in battle. In the interpretation of the regulations the spirit must be sought. Quibbling over the minutiæ of form is indicative of failure to grasp the spirit." (*Paragraph 4, Infantry Drill Regulations.*)

Field Service Regulations govern all arms of the Army of the United States.

Section 2. The Army of the United States.

The Army of the United States shall consist of the Regular Army, the Volunteer Army, the Officers' Reserve Corps, the Enlisted Reserve Corps, the National Guard while in the service of the United States, and such other land forces as are now or may hereafter be authorized by law. (Sec. 1, act of June 3, 1916.)

Section 3. Rank and precedence of officers and noncommissioned officers.

The following are the grades of rank of officers and noncommissioned officers:

1. Lieutenant general.
2. Major general.
3. Brigadier general.
4. Colonel.
5. Lieutenant colonel.

6. Major.
7. Captain.
8. First Lieutenant.
9. Second lieutenant.
10. Aviator, Signal Corps.
11. Cadet.
12. (*a*) Sergeant major, regimental; sergeant major, senior grade, Coast Artillery Corps; (*b*) quartermaster sergeant, senior grade, Quartermaster Corps; master hospital sergeant, Medical Department; master engineer, senior grade, Corps of Engineers; master electrician, Coast Artillery Corps; master signal electrician; band leader; (*c*) hospital sergeant, Medical Department; master engineer, junior grade, Corps of Engineers; engineer, Coast Artillery Corps.
13. Ordnance sergeant; quartermaster sergeant, Quartermaster Corps; supply sergeant, regimental.
14. Sergeant major, squadron and battalion; sergeant major, junior grade, Coast Artillery Corps; supply sergeant, battalion, Corps of Engineers.
15. (*a*) First sergeant; (*b*) sergeant, first class, Medical Department; sergeant, first class, Quartermaster Corps; sergeant, first class, Corps of Engineers; sergeant, first class, Signal Corps; electrician sergeant, first class, Coast Artillery Corps; electrician sergeant, Artillery Detachment, United States Military Academy; assistant engineer, Coast Artillery Corps; (*c*) master gunner, Coast Artillery Corps; master gunner, Artillery Detachment, United States Military Academy; band sergeant and assistant leader, United States Military Academy band; assistant band leader; sergeant bugler; electrician sergeant, second class, Coast Artillery Corps; electrician sergeant, second class, Artillery Detachment, United States Military Academy; radio sergeant.
16. Color sergeant.
17. Sergeant; supply sergeant, company; mess sergeant; stable sergeant; fireman, Coast Artillery Corps.
18. Corporal.

In each grade and subgrade date of commission, appointment, or warrant determines the order of precedence. (Paragraph 9, Army Regulations, 1913.)

Section 4. Insignia of officers and noncommissioned officers.

The insignia of rank appearing on the shoulder straps, shoulder loops, or collar of shirt (when shirt is worn without coat) of officers are as follows:

General: Coat of arms and two stars.
Lieutenant general: One large star and two smaller ones.
Major general: Two silver stars.
Brigadier general: One silver star.
Colonel: One silver spread eagle.
Lieutenant colonel: One silver leaf.
Major: One gold leaf.
Captain: Two silver bars.
First lieutenant: One silver bar.

The grade of noncommissioned officers is indicated by chevrons worn on the sleeve.

Section 5. Extracts from the Articles of War.

(Relating to enlisted men.)

CERTAIN ARTICLES TO BE READ AND EXPLAINED.

ART. 110. Articles 1, 2, and 29, 54 to 96, inclusive, and 104 to 109, inclusive, shall be read and explained to every soldier at the time of his enlistment or muster in, or within six days thereafter, and shall be read and explained once every six months to the soldiers of every garrison, regiment, or company in the service of the United States.

DEFINITIONS.

ARTICLE 1. The following words when used in these articles shall be construed in the sense indicated in this article, unless the context shows that a different sense is intended, namely:

(*a*) The word "officer" shall be construed to refer to a commissioned officer;

(*b*) The word "soldier" shall be construed as including a noncommissioned officer, a private, or any other enlisted man;

(*c*) The word "company" shall be understood as including a troop or battery; and

(*d*) The word "battalion" shall be understood as including a squadron.

PERSONS SUBJECT TO MILITARY LAW.

ART. 2. The following persons are subject to these articles and shall be understood as included in the term "any person subject to military law" or "persons subject to military law" whenever used in these articles: *Provided*, That nothing contained in this act, except as specifically provided in article 2, subparagraph (*c*), shall be construed to apply to any person under the United States naval jurisdiction, unless otherwise specifically provided by law;

(*a*) All officers and soldiers belonging to the Regular Army of the United States; all volunteers, from the dates of their muster or acceptance into the military service of the United States; and all other persons lawfully called, drafted, or ordered into or to duty or for training in the said service, from the dates they are required by the terms of the call, draft, or order to obey the same.

(*b*) Cadets.

(*c*) Officers and soldiers of the Marine Corps when detached for service with the armies of the United States by order of the President: *Provided*, That an officer or soldier of the Marine Corps when so detached may be tried by military court-martial for an offense committed against the laws for the government of the naval service prior to his detachment, and for an offense committed against these articles he may be tried by a naval court-martial after such detachment ceases.

(*d*) All retainers to the camp and all persons accompanying or serving with the armies of the United States without the territorial jurisdiction of the United States, and in times of war all such retainers and persons accompanying or serving with the armies of the United States in the field, both within and without the territorial jurisdiction of the United States, though not otherwise subject to these articles.

(*e*) All persons under sentence adjudged by courts-martial.

(*f*) All persons admitted into the Regular Army Soldiers' Home at Washington, D. C.

ENLISTMENT WITHOUT DISCHARGE.

ART. 29. Any soldier who, without having first received a regular discharge, again enlists in the Army, or in the militia when in the service of the United States, or in the Navy or Marine Corps of the United States, or in any foreign army, shall be deemed to have deserted the service of the United States, and, where enlistment is in one of the forces of the United States mentioned above, to have fraudulently enlisted therein.

FRAUDULENT ENLISTMENT.

ART. 54. Any person who shall procure himself to be enlisted in the military service of the United States by means of willful misrepresentation or concealment as to his qualifications for enlistment, and shall receive pay or allowances under such enlistment, shall be punished as a court-martial may direct.

OFFICER MAKING UNLAWFUL ENLISTMENT.

ART. 55. Any officer who knowingly enlists or musters into the military service any person whose enlistment or muster in is prohibited by law, regulations, or orders shall be dismissed from the service or suffer such other punishment as a court-martial may direct.

MUSTER ROLLS—FALSE MUSTER.

ART. 56. At every muster of a regiment, troop, battery, or company the commanding officer thereof shall give to the mustering officer certificates, signed by himself, stating how long absent officers have been absent and the reasons of their absence. And the commanding officer of every troop, battery, or company shall give like certificates, stating how long absent noncommissioned officers and private soldiers have been absent and the reasons of their absence. Such reasons and time of absence shall be inserted in the muster rolls opposite the names of the respective absent officers and soldiers, and the certificates, together with the muster rolls, shall be transmitted by the mustering officer to the Department of War as

speedily as the distance of the place and muster will admit. Any officer who knowingly makes a false muster of man or animal, or who signs or directs or allows the signing of any muster roll knowing the same to contain false muster or false statement as to the absence or pay of an officer or soldier, or who wrongfully takes money or other consideration on mustering in a regiment, company, or other organization, or on signing muster rolls, or who knowingly musters as an officer or soldier a person who is not such officer or soldier, shall be dismissed from the service and suffer such other punishment as a court-martial may direct.

FALSE RETURNS—OMISSION TO RENDER RETURNS.

ART. 57. Every officer commanding a regiment, an independent troop, battery, or company, or a garrison shall, in the beginning of every month, transmit, through the proper channels, to the War Department an exact return of the same, specifying the names of the officers then absent from their posts, with the reasons for and the time of their absence. Every officer whose duty it is to render to the War Department or other superior authority a return of the state of the troops under his command, or of the arms, ammunition, clothing, funds, or other property thereunto belonging, who knowingly makes a false return thereof shall be dismissed from the service and suffer such other punishment as a court-martial may direct. And any officer who, through neglect or design, omits to render such return shall be punished as a court-martial may direct.

DESERTION.

ART. 58. Any person subject to military law who deserts or attempts to desert the service of the United States shall, if the offense be committed in time of war, suffer death or such other punishment as a court-martial may direct, and, if the offense be committed at any other time, any punishment, excepting death, that a court-martial may direct.

ADVISING OR AIDING ANOTHER TO DESERT.

ART. 59. Any person subject to military law who advises or persuades or knowingly assists another to desert the service of the United States shall, if the offense be committed in time of war, suffer death, or such other punishment as a court-martial may direct, and if the offense be committed at any other time any punishment, excepting death, that a court-martial may direct.

ENTERTAINING A DESERTER.

ART. 60. Any officer who, after having discovered that a soldier in his command is a deserter from the military or naval service or from the Marine Corps, retains such deserter in his command without informing superior authority or the commander of the organization to which the deserter belongs, shall be punished as a court-martial may direct.

ABSENCE WITHOUT LEAVE.

ART. 61. Any person subject to military law who fails to repair at the fixed time to the properly appointed place of duty, or goes from the same without proper leave, or absents himself from his command, guard, quarters, station, or camp without proper leave, shall be punished as a court-martial may direct.

DISRESPECT TOWARD THE PRESIDENT, VICE PRESIDENT, CONGRESS, SECRETARY OF WAR, GOVERNORS, LEGISLATURES.

ART. 62. Any officer who uses contemptuous or disrespectful words against the President, Vice President, the Congress of the United States, the Secretary of War, or the governor or legislature of any State, Territory, or other possession of the United States in which he is quartered shall be dismissed from the service or suffer such other punishment as a court-martial may direct. Any other person subject to military law who so offends shall be punished as a court-martial may direct.

DISRESPECT TOWARD SUPERIOR OFFICERS.

ART. 63. Any person subject to military law who behaves himself with disrespect toward his superior officer shall be punished as a court-martial may direct.

ASSAULTING OR WILLFULLY DISOBEYING SUPERIOR OFFICER.

ART. 64. Any person subject to military law who, on any pretense whatsoever, strikes his superior officer or draws or lifts up any weapon or offers any violence against him, being in the execution of his office, or willfully disobeys any lawful command of his superior officer, shall suffer death or such other punishment as a court-martial may direct.

INSUBORDINATE CONDUCT TOWARD NONCOMMISSIONED OFFICER.

ART. 65. Any soldier who strikes or assaults, or who attempts or threatens to strike or assault, or willfully disobeys the lawful order of a noncommissioned officer while in the execution of his office, or uses threatening or insulting language, or behaves in an insubordinate or disrespectful manner toward a noncommissioned officer while in the execution of his office, shall be punished as a court-martial may direct.

MUTINY OR SEDITION.

ART. 66. Any person subject to military law who attempts to create or who begins, excites, causes, or joins in any mutiny or sedition in any company, party, post, camp, detachment, guard, or other command shall suffer death or such other punishment as a court-martial may direct.

FAILURE TO SUPPRESS MUTINY OR SEDITION.

ART. 67. Any officer or soldier who, being present at any mutiny or sedition, does not use his utmost endeavor to suppress the same, or knowing or having reason to believe that a mutiny or sedition is to take place, does not without delay give information thereof to his commanding officer shall suffer death or such other punishment as a court-martial may direct.

QUARRELS, FRAYS, DISORDERS.

ART. 68. All officers and noncommissioned officers have power to part and quell all quarrels, frays, and disorders among persons subject to military law and to order officers

who take part in the same into arrest, and other persons subject to military law who take part in the same into arrest or confinement, as circumstances may require, until their proper superior officer is acquainted therewith. And whosoever, being so ordered, refuses to obey such officer or noncommissioned officer or draws a weapon upon or otherwise threatens or does violence to him shall be punished as a court-martial may direct.

ARREST OR CONFINEMENT OF ACCUSED PERSONS.

ART. 69. An officer charged with crime or with a serious offense under these articles shall be placed in arrest by the commanding officer, and in exceptional cases an officer so charged may be placed in confinement by the same authority. A soldier charged with crime or with a serious offense under these articles shall be placed in confinement, and when charged with a minor offense he may be placed in arrest. Any other person subject to military law charged with crime or with a serious offense under these articles shall be placed in confinement or in arrest, as circumstances may require; and when charged with a minor offense such person may be placed in arrest. Any person placed in arrest under the provisions of this article shall thereby be restricted to his barracks, quarters, or tent, unless such limits shall be enlarged by proper authority. Any officer who breaks his arrest or who escapes from confinement before he is set at liberty by proper authority shall be dismissed from the service or suffer such other punishment as a court-martial may direct; and any other person subject to military law who escapes from confinement or who breaks his arrest before he is set at liberty by proper authority shall be punished as a court-martial may direct.

INVESTIGATION OF AND ACTION UPON CHARGES.

ART. 70. No person put in arrest shall be continued in confinement more than eight days, or until such time as a court-martial can be assembled. When any person is put in arrest for the purpose of trial, except at remote military posts or stations, the officer by whose order he is arrested shall see

that a copy of the charges on which he is to be tried is served upon him within eight days after his arrest, and that he is brought to trial within 10 days thereafter, unless the necessities of the service prevent such trial; and then he shall be brought to trial within 30 days after the expiration of said 10 days. If a copy of the charges be not served, or the arrested person be not brought to trial, as herein required, the arrest shall cease. But persons released from arrest, under the provisions of this article, may be tried, whenever the exigencies of the service shall permit, within 12 months after such release from arrest: *Provided*, That in time of peace no person shall, against his objection, be brought to trial before a general court-martial within a period of five days subsequent to the service of charges upon him.

REFUSAL TO RECEIVE AND KEEP PRISONERS.

ART. 71. No provost marshal or commander of a guard shall refuse to receive or keep any prisoner committed to his charge by an officer belonging to the forces of the United States, provided the officer committing shall, at the time, deliver an account in writing, signed by himself, of the crime or offense charged against the prisoner. Any officer or soldier so refusing shall be punished as a court-martial may direct.

REPORT OF PRISONERS RECEIVED.

ART. 72. Every commander of a guard to whose charge a prisoner is committed shall, within 24 hours after such confinement, or as soon as he is relieved from his guard, report in writing to the commanding officer the name of such prisoner, the offense charged against him, and the name of the officer committing him; and if he fails to make such report he shall be punished as a court-martial may direct.

RELEASING PRISONER WITHOUT PROPER AUTHORITY.

ART. 73. Any person subject to military law who, without proper authority, releases any prisoner duly committed to his charge, or who, through neglect or design, suffers any prisoner so committed to escape, shall be punished as a court-martial may direct.

DELIVERY OF OFFENDERS TO CIVIL AUTHORITIES.

ART. 74. When any person subject to military law, except one who is held by the military authorities to answer, or who is awaiting trial or result of trial, or who is undergoing sentence for a crime or offense punishable under these articles, is accused of a crime or offense committed within the geographical limits of the States of the Union and the District of Columbia, and punishable by the laws of the land, the commanding officer is required, except in time of war, upon application duly made, to use his utmost endeavor to deliver over such accused person to the civil authorities, or to aid the officers of justice in apprehending and securing him, in order that he may be brought to trial. Any commanding officer who upon such application refuses or willfully neglects, except in time of war, to deliver over such accused person to the civil authorities or to aid the officers of justice in apprehending and securing him shall be dismissed from the service or suffer such other punishment as a court-martial may direct.

When under the provisions of this article delivery is made to the civil authorities of an offender undergoing sentence of a court-martial, such delivery, if followed by conviction, shall be held to interrupt the execution of the sentence of the court-martial, and the offender shall be returned to military custody, after having answered to the civil authorities for his offense, for the completion of the said court-martial sentence.

MISBEHAVIOR BEFORE THE ENEMY.

ART. 75. Any officer or soldier who misbehaves himself before the enemy, runs away, or shamefully abandons or delivers up any fort, post, camp, guard, or other command which it is his duty to defend, or speaks words inducing others to do the like, or casts away his arms or ammunition, or quits his post or colors to plunder or pillage, or by any means whatsoever occasions false alarms in camp, garrison, or quarters, shall suffer death or such other punishment as a court-martial may direct.

SUBORDINATES COMPELLING COMMANDER TO SURRENDER.

ART. 76. If any commander of any garrison, fort, post, camp, guard, or other command is compelled by the officers or soldiers under his command to give it up to the enemy or to abandon it, the officers or soldiers so offending shall suffer death or such other punishent as a court-martial may direct.

IMPROPER USE OF COUNTERSIGN.

ART. 77. Any person subject to military law who makes known the parole or countersign to any person not entitled to receive it according to the rules and discipline of war, or gives a parole or countersign different from that which he receives, shall, if the offense be committed in time of war, suffer death or such other punishment as a court-martial may direct.

FORCING A SAFEGUARD.

ART. 78. Any person subject to military law who, in time of war, forces a safeguard shall suffer death or such other punishment as a court-martial may direct.

CAPTURED PROPERTY TO BE SECURED FOR PUBLIC SERVICE.

ART. 79. All public property taken from the enemy is the property of the United States and shall be secured for the service of the United States, and any person subject to military law who neglects to secure such property or is guilty of wrongful appropriation thereof shall be punished as a court-martial may direct.

DEALING IN CAPTURED OR ABANDONED PROPERTY.

ART. 80. Any person subject to military law who buys, sells, trades, or in any way deals in or disposes of captured or abandoned property, whereby he shall receive or expect any profit, benefit, or advantage to himself or to any other person directly or indirectly connected with himself, or who fails whenever such property comes into his possession or custody or within his control to give notice thereof to the proper authority and to turn over such property to the proper authority

without delay, shall, on conviction thereof, be punished by fine or imprisonment, or by such other punishment as a court-martial, military commission, or other military tribunal may adjudge, or by any or all of said penalties.

RELIEVING, CORRESPONDING WITH, OR AIDING THE ENEMY.

ART. 81. Whosoever relieves the enemy with arms, ammunition, supplies, money, or other thing, or knowingly harbors or protects or holds correspondence with or gives intelligence to the enemy, either directly or indirectly, shall suffer death, or such other punishment as a court-martial or military commission may direct.

SPIES.

ART. 82. Any person who in time of war shall be found lurking or acting as a spy in or about any of the fortifications, posts, quarters, or encampments of any of the armies of the United States, or elsewhere, shall be tried by a general court-martial or by a military commission, and shall, on conviction thereof, suffer death.

MILITARY PROPERTY—WILLFUL OR NEGLIGENT LOSS, DAMAGE, OR WRONGFUL DISPOSITION OF.

ART. 83. Any person subject to military law who willfully or through neglect suffers to be lost, spoiled, damaged, or wrongfully disposed of any military property belonging to the United States shall make good the loss or damage and suffer such punishment as a court-martial may direct.

WASTE OR UNLAWFUL DISPOSITION OF MILITARY PROPERTY ISSUED TO SOLDIERS.

ART. 84. Any soldier who sells or wrongfully disposes of or willfully or through neglect injures or loses any horse, arms, ammunition, accouterments, equipments, clothing, or other property issued for use in the military service shall be punished as a court-martial may direct.

DRUNK ON DUTY.

ART. 85. Any officer who is found drunk on duty shall, if the offense be committed in time of war, be dismissed from

the service and suffer such other punishment as a court-martial may direct; and if the offense be committed in time of peace he shall be punished as a court-martial may direct. Any person subject to military law, except an officer, who is found drunk on duty shall be punished as a court-martial may direct.

MISBEHAVIOR OF SENTINEL.

ART. 86. Any sentinel who is found drunk or sleeping upon his post, or who leaves it before he is regularly relieved, shall, if the offense be committed in time of war, suffer death or such other punishment as a court-martial may direct; and if the offense be committed in time of peace he shall suffer any punishment, except death, that a court-martial may direct.

PERSONAL INTEREST IN SALE OF PROVISIONS.

ART. 87. Any officer commanding in any garrison, fort, barracks, camp, or other place where troops of the United States may be serving who, for his private advantage, lays any duty or imposition upon or is interested in the sale of any victuals or othes necessaries of life brought into such garrison, fort, barracks, camp, or other place for the use of the troops, shall be dismissed from the service and suffer such other punishment as a court-martial may direct.

INTIMIDATION OF PERSONS BRINGING PROVISIONS.

ART. 88. Any person subject to military law who abuses, intimidates, does violence to, or wrongfully interferes with any person bringing provisions, supplies, or other necessaries to the camp, garrison, or quarters of the forces of the United States shall suffer such punishment as a court-martial may direct.

GOOD ORDER TO BE MAINTAINED AND WRONGS REDRESSED.

ART. 89. All persons subject to military law are to behave themselves orderly in quarters, garrison, camp, and on the march; and any person subject to military law who commits any waste or spoil, or willfully destroys any property whatso-

ever (unless by order of his commanding officer), or commits any kind of depredation or riot, shall be punished as a court-martial may direct. Any commanding officer who, upon complaint made to him, refuses or omits to see reparation made to the party injured, in so far as the offender's pay shall go toward such reparation, as provided for in article 105, shall be dismissed from the service or otherwise punished as a court-martial may direct.

PROVOKING SPEECHES OR GESTURES.

ART. 90. No person subject to military law shall use any reproachful or provoking speeches or gestures to another; and any person subject to military law who offends against the provisions of this article shall be punished as a court-martial may direct.

DUELING.

ART. 91. Any person subject to military law who fights or promotes or is concerned in or connives at fighting a duel, or who having knowledge of a challenge sent or about to be sent, fails to report the fact promptly to the proper authority, shall, if an officer, be dismissed from the service or suffer such other punishment as a court-martial may direct; and if any other person subject to military law shall suffer such punishment as a court-martial may direct.

MURDER—RAPE.

ART. 92. Any person subject to military law who commits murder or rape shall suffer death or imprisonment for life, as a court-martial may direct; but no person shall be tried by court-martial for murder or rape committed within the geographical limits of the States of the Union and the District of Columbia in time of peace.

VARIOUS CRIMES.

ART. 93. Any person subject to military law who commits manslaughter, mayhem, arson, burglary, robbery, larceny, embezzlement, perjury, assault with intent to commit any felony, or assault with intent to do bodily harm, shall be punished as a court-martial may direct.

FRAUDS AGAINST THE GOVERNMENT.

ART. 94. Any person subject to military law who makes or causes to be made any claim against the United States or any officer thereof, knowing such claim to be false or fraudulent; or

Who presents or causes to be presented to any person in the civil or military service thereof, for approval or payment, any claim against the United States or any officer thereof, knowing such claim to be false or fraudulent; or

Who enters into any agreement or conspiracy to defraud the United States by obtaining, or aiding others to obtain, the allowance or payment of any false or fraudulent claim; or

Who, for the purpose of obtaining, or aiding others to obtain, the approval, allowance, or payment of any claim against the United States or against any officer thereof, makes or uses, or procures, or advises the making or use of, any writing or other paper, knowing the same to contain any false or fraudulent statements; or

Who, for the purpose of obtaining, or aiding others to obtain, the approval, allowance, or payment of any claim against the United States or any officer thereof, makes, or procures, or advises the making of, any oath to any fact or to any writing or other paper, knowing such oath to be false; or

Who, for the purpose of obtaining, or aiding others to obtain, the approval, allowance, or payment of any claim against the United States or any officer thereof, forges or counterfeits, or procures, or advises the forging or counterfeiting of any signature upon any writing or other paper, or uses, or procures, or advises the use of any such signature, knowing the same to be forged or counterfeited; or

Who, having charge, possession, custody, or control of any money or other property of the United States, furnished or intended for the military service thereof, knowingly delivers, or causes to be delivered, to any person having authority to receive the same, any amount thereof less than that for which he receives a certificate or receipt; or

Who, being authorized to make or deliver any paper certifying the receipt of any property of the United States furnished or intended for the military service thereof, makes or delivers to any person such writing, without having full

knowledge of the truth of the statements therein contained and with intent to defraud the United States; or

Who steals, embezzles, knowingly and willfully misappropriates, applies to his own use or benefit, or wrongfully or knowingly sells or disposes of any ordnance, arms, equipments, ammunition, clothing, subsistence stores, money, or other property of the United States furnished or intended for the military service thereof; or

Who knowingly purchases or receives in pledge for any obligation or indebtedness from any soldier, officer, or other person who is a part of or employed in said forces or service, any ordnance, arms, equipment, ammunition, clothing, subsistence stores, or other property of the United States, such soldier, officer, or other person not having lawful right to sell or pledge the same;

Shall, on conviction thereof, be punished by fine or imprisonment, or by such other punishment as a court-martial may adjudge, or by any or all of said penalties. And if any person, being guilty of any of the offenses aforesaid while in the military service of the United States, receives his discharge or is dismissed from the service, he shall continue to be liable to be arrested and held for trial and sentence by a court-martial in the same manner and to the same extent as if he had not received such discharge nor been dismissed.

CONDUCT UNBECOMING AN OFFICER AND GENTLEMAN.

ART. 95. Any officer or cadet who is convicted of conduct unbecoming an officer and a gentleman shall be dismissed from the service.

GENERAL ARTICLE.

ART. 96. Though not mentioned in these articles, all disorders and neglects to the prejudice of good order and military discipline, all conduct of a nature to bring discredit upon the military service, and all crimes or offenses not capital of which persons subject to military law may be guilty shall be taken cognizance of by a general or special or summary court-martial, according to the nature and degree of the offense, and punished at the discretion of such court.

DISCIPLINARY POWERS OF COMMANDING OFFICERS.

ART. 104. Under such regulations as the President may prescribe, and which he may from time to time revoke, alter, or add to, the commanding officer of any detachment, company, or higher command may, for minor offenses not denied by the accused, impose disciplinary punishments upon persons of his command without the intervention of a court-martial, unless the accused demands trial by court-martial.

The disciplinary punishments authorized by this article may include admonition, reprimand, withholding of privileges, extra fatigue, and restriction to certain specified limits, but shall not include forfeiture of pay or confinement under guard. A person punished under authority of this article who deems his punishment unjust or disproportionate to the offense may, through the proper channel, appeal to the next superior authority, but may in the meantime be required to undergo the punishment adjudged. The commanding officer who imposes the punishment, his successor in command, and superior authority shall have power to mitigate or remit any unexecuted portion of the punishment. The imposition and enforcement of disciplinary punishment under authority of this article for any act or omission shall not be a bar to trial by court-martial for a crime or offense growing out of the same act or omission; but the fact that a disciplinary punishment has been enforced may be shown by the accused upon trial, and when so shown shall be considered in determining the measure of punishment to be adjudged in the event of a finding of guilty.

REDRESS OF INJURIES TO PERSON OR PROPERTY.

ART. 105. Whenever complaint is made to any commanding officer that damage has been done to the property of any person or that his property has been wrongfully taken by persons subject to military law, such complaint shall be investigated by a board consisting of any number of officers from one to three, which board shall be convened by the commanding officer and shall have, for the purpose of such investigation, power to summon witnesses and examine them upon oath or affirmation, to receive depositions or other documentary evidence, and to assess the damages sustained

against the responsible parties. The assessment of damages made by such board shall be subject to the approval of the commanding officer, and in the amount approved by him shall be stopped against the pay of the offenders. And the order of such commanding officer directing stoppages herein authorized shall be conclusive on any disbursing officer for the payment by him to the injured parties of the stoppages so ordered.

Where the offenders can not be ascertained but the organization or detachment to which they belong is known, stoppages to the amount of damages inflicted may be made and assessed in such proportiton as may be deemed just upon the individual members thereof who are shown to have been present with such organization or detachment at the time the damages complained of were inflicted, as determined by the approved findings of the board.

ARREST OF DESERTERS BY CIVIL OFFICIALS.

ART. 106. It shall be lawful for any civil officer having authority under the laws of the United States, or of any State, Territory, District, or possession of the United States, to arrest offenders, summarily to arrest a deserter from the military service of the United States and deliver him into the custody of the military authorities of the United States.

SOLDIERS TO MAKE GOOD TIME LOST.

ART. 107. Every soldier who in an existing or subsequent enlistment deserts the service of the United States or without proper authority absents himself from his organization, station, or duty for more than one day, or who is confined for more than one day under sentence, or while awaiting trial and disposition of his case, if the trial results in conviction, or through the intemperate use of drugs or alcoholic liquor, or through disease or injury the result of his own misconduct, renders himself unable for more than one day to perform duty, shall be liable to serve, after his return to a full-duty status, for such period as shall, with the time he may have served prior to such desertion, unauthorized absence, confine-

ment, or inability to perform duty, amount to the full term of that part of his enlistment period which he is required to serve with his organization before being furloughed to the Army Reserve.

SOLDIERS—SEPARATION FROM THE SERVICE.

ART. 108. No enlisted man, lawfully inducted into the military service of the United States, shall be discharged from said service without a certificate of discharge, signed by a field officer of the regiment or other organization to which he enlisted man belongs or by the commanding officer when no such field officer is present; and no enlisted man shall be discharged from said service before his term of service has expired, except by order of the President, the Secretary of War, the commanding officer of a department, or by a sentence of a general court-martial.

OATH OF ENLISTMENT.

ART. 109. At the time of his enlistment every soldier shall take the following oath or affirmation: "I, ———, do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America; that I will serve them honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the President of the United States and the orders of the officers appointed over me, according to the Rules and Articles of War." This oath or affirmation may be taken before any officer.

CHAPTER XV.

ENGLISH-FRENCH VOCABULARY.

COMMON WORDS.

Afternoon (this)	Cet après-midi.
Army (an)	Une armée.
Bandage	Un bandage.
Bath	Un bain.
Bayonet	Une baïonnette.
Bed	Un lit.
Blanket	Une couverture.
Boy	Un garçon.
Bullet	Une balle.
	Un pruneau (soldier slang).
Camp	Un camp.
	Un campement.
Cartridge	Une cartouche.
Child	Un enfant.
	Une enfant.
Cook	Un cuisinier.
	Un cuistot (slang).
	Une cuisinière (fem.).
Dance	Un bal.
	Une danse (one dance).
Dark	Obscur.
Day	Un jour.
Dead	Mort.
Deserter	Un déserteur.
Door	Une porte.
Farm	Une ferme.
Firearms	Des armes à feu.
Field gun	Une pièce de campagne.
Flag	Un drapeau.
	Un étendard (standard).

Forest	Une forêt.
	Un bois (woods).
	Un boqueteau (clump of trees).
Friend	Un ami.
	Une amie.
Girl	Une jeune fille.
Guide	Un guide.
Gun	Un fusil.
Halt!	Halte!
Hand	Une main.
Hat	Un chapeau.
	Un képi (cap).
	Un casque (helmet).
	Un feutre (campaign hat).
Head	La tête.
Headquarrters	Le quartier-général.
Horse	Un cheval.
Interpreter	Un interprète.
Knife	Un couteau.
Lake	Un lac.
Man	Un homme.
Meat	De la viande.
Name	Un nom.
Night	La nuit.
Noon	Midi.
Machine gun	Une mitrailleuse.
Mess call	La soupe.
Password	Le mot de passe.
Pay	Le prêt (enlisted men).
	La solde (officers).
Prisoner	Un prisonnier.
Recruit	Une recrue.
	Un bleu (slang).
	Un bleuet (slang).
	Un blanc-bec (slang).
Restaurant	Un restaurant.
	Un café.
Road	Un chemin.
	Une route.
Retreat	La retraite.

Reveille	Le réveil.
	La diane.
Saber	Un sabre.
Saddle	Une selle.
Shoe	Des chaussures (shoes in general).
	Des souliers (low shoes).
	Des bottines (high shoes).
	Des brodequins (marching shoes).
Shotgun	Un fusil de chasse.
Sick	Malade.
Soup	Une soupe.
	Un potage.
Spy	Un espion.
Supper	Le souper.
Sword	Une épée.
Tent	Une tente.
Shelter tent	Une tente-abri.

NUMERALS.

One	Un, une.
Two	Deux.
Three	Trois.
Four	Quatre.
Five	Cinq (pronounce *sank*).
Six	Six (pronounce *cease*).
Seven	Sept (pronounce *set*).
Eight	Huit (pronounce *weet*).
Nine	Neuf.
Ten	Dix (pronounce *deess*).
Eleven	Onze.
Twelve	Douze.
Thirteen	Treize.
Fourteen	Quatorze.
Fifteen	Quinze.
Sixteen	Seize.
Seventeen	Six-sept.
Eighteen	Dix-huit.
Nineteen	Dix-neuf.
Twenty	Vingt (pronounce *vant*).
Twenty-one	Vingt-et-un.

Thirty	Trente.
Thirty-one	Trente-et-un.
Thirty-two	Trente-deux.
Forty	Quarante.
Fifty	Cinquante.
Sixty	Soixante.
Seventy	Soixante-dix.
Seventy-one	Soixante-et-onze.
Seventy-two	Soixante-douze.
Eighty	Quatre-vingts.
Eighty-one	Quatre-vingt-un.
Ninety	Quatre-vingt-dix.
Ninety-one	Quatre-vingt-onze.
One hundred	Cent.
One hundred and one	Cent un.
Two hundred	Deux cents.
Two hundred and one	Deux cent un.
One thousand	Mille.
Two thousand	Deux mille.
One thousand one hundred	Mille cent; onze cents.
Thousands of soldiers	Des milliers de soldats.
A million	Un million.
Two million men	Deux millions d'hommes.
A score	Une vingtaine.
About forty men	Une quarantaine d'hommes.
Hundreds of men	Des centaines d'hommes.

CURRENCY, MEASURES, AND WEIGHTS.

1 cent	Un sou; cinq centimes.
10 cents	Dix sous; cinquante centimes.
20 cents (about)	Un francs.
1 dollar	Cinq francs.

(The French have gold pieces of 10 francs and 20 francs; bank notes of 50 francs, 100 francs, and higher. The gold pieces are probably replaced by bank notes now.)

1 meter (1.0936 yards)	Un mètre.
1 kilometer (0.62138 mile)	Un kilomètre.

NOTE.—For all ordinary purposes, the "Kilomètre"=$\frac{5}{8}$ of a mile; the "Centimètre"=$\frac{4}{10}$ of an inch.

1 league (2.48552 miles)	Une lieue.
1 hectare (2.4711 acres)	Un hectare.
1 gram (15.43239 grain Troy)	Un gramme.
1 kilogram (2.204621 pounds avoirdupois)	Un kilogramme.
220.46 pounds avoirdupois	Un quintal; 100 kilos.
2,204.6 pounds avoirdupois	Une tonne; 1,000 kilos.

(Coal is sold by the *tonne;* grain and hay by the *quintal.* Dix quintaux de blé, de foin=10 quintals of grain, of hay.)

1.0567 quart (liquid)	Un litre.
26.417 gallons	Un hectolitre.
0.9081 quart (dry)	Un litre.
2.8379 bushels	Un hectolitre.

(The *litre*, which is the principal unit of both fluid and dry measures, is the contents of 1 cubic *décimètre* (décimètre=$\frac{1}{10}$ mètre).)

DAYS, MONTHS, AND SEASONS.

Sunday	Dimanche.
Monday	Lundi.
Tuesday	Mardi.
Wednesday	Mercredi.
Thursday	Jeudi.
Friday	Vendredi.
Saturday	Samedi.
January	Janvier.
February	Février.
March	Mars.
April	Avril.
May	Mai.
June	Juin.
July	Juillet.
August	Août (pronounced *oo*).
September	Septembre.
October	Octobre.
November	Novembre.
December	Décembre.
The seasons	Les saisons.
Winter	L'hiver.

Spring	Le printemps.
Summer	L'été.
Fall	L'automne.
Year	Un an; une année.
Month	Un mois.
Week	Une semaine.
Day	Un jour.
Hour	Une heure.
Minute	Une minute.
Second	Une seconde.

COMMON PHRASES.

Good morning, sir, madam, miss. Good afternoon	Bonjour, monsieur, madame, mademoiselle.
Good evening, sir	Bonsoir, monsieur.
Good night, sir	Bonne nuit, monsieur.
Pardon me	Pardon; je vous demande pardon.
Don't mention it	Je vous en prie.
How do you do?	Comment allez-vous? Comment ça va? Comment vous portez-vous?
Very well, thank you	Très bien, merci. Je vais bien, merci. Ça va bien, merci. Je me porte bien, merci.
Do not trouble yourself	Ne vous gênez pas. Ne vous dérangez pas.
I am very glad to see you	Je suis bien aise de vous voir. Je suis content (heureux) de vous voir.
What time is it?	Quelle heure est-il?
It is 10 o'clock	Il est dix heures.
Take care; look out	Prenez garde.
Do not bother me	Ne me dérangez pas.
Stop here	Arrêtez-vous ici.
Does Mr. — live here?	M. — demeure t-il ici?
Come in	Entrez.
You are very kind	Vous êtes très aimable.
At what time does the first train start?	A quelle heure part le premier train?

What is the name of this station?	Coment s'appelle cette station (gare)?
I want	Je désire. Je veux (stronger).
I do not want it	Je n'en veux pas.
Let me know what I owe you	Dites-moi ce que je vous dois.
Are you not mistaken?	Ne faites-vous pas erreur? Ne vous trompez-vous pas?
Please give me	Veuillez me donner.
Move on	Avancez. Circulez. (Policeman.)
I want something to eat	Je désire quelque chose à manger.
Where is it?	Où est-ce?
Go and look for it	Allez le chercher.
Take this letter to the post office.	Portez cette lettre à la poste.
How much is it?	Combien? Combien cela coûte-t-il?
It is dear	C'est cher.
Thank you	Merci. Je vous en remercie.
Don't mention it	Il n'y a pas de quoi. De rien.
Allow me to present my friend.—	Permettez-moi de vous présénter mon ami —.
I am glad to make your acquaintance.	Je suis encahnté de faire votre connaissance.
How far is it?	A quelle distance est-ce?
What can I do for you?	Que puis-je faire pour vous?
Do you speak English?	Parlez-vous anglais?
I do not speak French very well.	Je ne parle pas très bien le français.
Where do you come from?	D'où venez-vous?
How did you come?	Comment êtes-vous venu?
On foot, in a carriage, in an auto, by rail, by boat, on a bicycle, on horseback, in an aeroplane.	A pied, en voiture, en auto, en cehmin de fer, en bateau, à bicyclette, à cheval, en aéroplane.

MILITARY TITLES, RANKS, AND GRADES.

General officers	Les officers généraux.
General staff	L'état-major général.
Field officers	Les officiers supérieurs.
Company officers	Les officiers subalternes.

Enlisted men	Les hommes de troupe.
Noncommissioned officers	Les sous-officiers.
Private soldiers	Les simples soldats.
Colonel	Le colonel (addressed* as "Mon colonel").
Major	Le commandant ("Mon commandant").
Captain	Le captaine ("Mon captaine").
	Le piston (slang).
First lieutenant	Le lieutenant (en premier) ("Mon lieutenant").
Second lieutenant	Le sous-lieutenant ("Mon lieutenant").
A doctor	Un (médecin) major.
A sergeant	Un sergent (addressed as "Sergent").
	Un maréchal des logis (mounted service).
A corporal	Un caporal ("Caporal").
	Un brigadier (mounted service).
A private	Un simple soldat.
A body of troops	Une troupe.
French troops	Des troupes françaises.
A wagoner	Un conducteur.
	Un fourgonnier.
A horseshoer	Un maréchal-ferrant.
A saddler	Un sellier.
A signaler	Un signaleur.
A deserter	Un déserteur.
A soldier of Infantry	Un fantassin.
Cavalry	Un cavalier.
Artillery	Un artilleur.
Engineers	Un sapeur-mineur.
Quartermaster Corps.	Un homme de l'intendance.
Signal Corps	Un homme du corps des signaux.
Hospital Corps	Un infirmier.
Line of Communications.	Un garde des voies et communications, G. V. C.
Infantry	L'infanterie.

* See note, p. 388.

Cavalry	La cavalerie.
Artillery	L'artillerie.
Engineers	Le génie.
Signal Corps	Le corps des signaux.
Hospital Corps	Le corps de santé. Le service de santé.
Aviation Corps	Le corps d'aviation.

MILITARY TERMS.

The headquarters	Le quartier général.
The train	Le train des équipages.
Railway service	Le service des chemins de fer.
Telegraph service	Le service des télégraphes.
Rural guards	La gendarmerie. Des gendarmes.
A paymaster	Un trésorier.
A chaplain	Un aumônier.
An army	Une armée.
General So-and-so's army	L'armée—(l'armée Foch).
An army corps	Un corps d'armée.
A division	Une division.
A brigade	Une brigade.
A regiment	Un régiment.
A battalion	Un bataillon.
A company	Une compagnie.
A platoon	Un peloton.
A section	Une section.
A squad	Une escouade.
A detachment	Un détachment.
Barracks	Une caserne.
A camp	Un camp (more or less permanent). Un campement (temporary).
A cantonment	Un cantonnement.
Line	(Une) ligne.
Column	(Une) colonne.
As skirmishers	En tirailleurs.
Follow me, as skirmishers	A moi, en tirailleurs.
Scouts	Des éclaireurs.
A patrol	Une patrouille.
The advance guard	L'avant-garde.

The rear guard	L'arrière-garde.
Flankers	Des flanc-gardes.
The main body	Le gros (de la colonne).
Combat train	Le train de combat.
Field train	Le train régimentaire.
Outposts	Des avant-postes.
Cossack posts	Des avant-postes à la cosaque.
A sentinel	Une sentinelle. Un factionnaire.
On post	En faction. De faction.
Guard mounting	La garde montante (also *new guard*).
The sentinel challenges: "Halt! Who's there?"	La sentinelle crie: "Halte! Qui vive?"
The answer is: "France"	La réponse est: "France."
Advance with the countersign	Avance au ralliement.

(The person challenged gives the *mot d'ordre*, which is the name of some general, and the sentinel replies with the *mot de ralliement*, which is the name of a battle or a city.)

Go away; you can't pass	(Passe) au large.
Halt, or I fire	Halte, ou je fais feu.
Put down your arms	Déposez vos armes.
Hands up!	Levez les bras.
Face about	(Faites) demi-tour.
Come here	Venez ici.
A spy	Un espion.
A flag of truce	Un drapeau blanc. Un drapeau parlementaire.

UNIFORMS, ARMS, CLOTHING, AND EQUIPMENT.

Clothing	Les vêtements l'habillement.
Change your clothes	Changez de vêtements.
Overcoat (worn by French infantry)	Une capote.
Trousers	Un pantalon.
Breeches	Une culotte.
Shirt	Une chemise.
Blouse	Un dolman, une vareuse.

Cap	Un képi.
Campaign hat (United States)	Un (chapeau de) feutre.
Helmet	Un casque (de tranchée).
Cap with visor worn by French off duty	Un bonnet de police.
Tam-o'-shanter worn by Alpine chasseurs	Un béret.
Shoes in general	Des chaussures.
Service shoes	Des brodequins.
Leggins	Des guêtres.
Wrap putties	Des bandes molletières.
Leather putties	Des houseaux (or housseaux).
Full-dress uniform	La grande tenue.
Dress uniform	La petite tenue.
Field uniform	La tenue de campagne.
Overcoat (mounted men)	Un manteau.
Overcoat (officers)	Un manteau. Un manteau-capote.
Fatigue coat	Le bourgeron.
Fatigue trousers (overalls)	Un pantalon de treillis.
Fatigue uniform	La tenue de corvée.
Magazine rifle	Un fusil à répétition.
The barrel	Le canon.
The bolt	Le verrou.
The ramrod	La baguette.
The butt	La crosse.
The gun sling	La bretelle.
The trigger	La détente.
Rear sight	La hausse.
Front sight	Le guidon.
A bayonet	Une baïonnette. Rosalie (slang).
Ball cartridge	Une cartouche à balle.
Blank cartridge	Une cartouche à blanc.
Dummy cartridge	Une fausse cartouche.
Belt	Un ceinturon.
Cartridge box	Une cartouchière.
First-aid packet	Un paquet de pansement.
The pack	Le sac.
A haversack	Un étui-musette.
Canteen	Un bidon.

Tin cup	Un quart.
Mess can	Une gamelle.
Equipment	L'équipement.
Compass	Une boussole.
Field glasses	Des jumelles (de campagne).
Whistle	Un sifflet.
Revolver	Un revolver.

QUESTIONS ABOUT THE ROADS, ETC.

Pardon me, sir, do you speak English?	Pardon, monsieur, parles-vous anglais?
(German, French, Italian, Russian)	(Allemand, français, italien, russe.)
All right, then show me, please, the road to——.	Très bien, alors indiquez-moi, je vous prie, le chemin de ———.
Is it far from here?	Est-ce loin d'ici?
How long does it take to go there?	Combien faut-il de temps pour y aller?
How many kilometers?	Combien de kilomètres?
Is there a short cut? (road)	Y a-t-il un chemin de traverse?
Is there a short cut? (trail)	Y a-t-il un sentier plus court?
Where does this road go?	Où mène cette route?
Are we on the right road to go to ——?	Sommes-nous sur le bon chemin pour aller à ——?
Does this road go through Compiègne?	Cette route passe-t-elle par Compiègne?
Shall we find any villages on our road?	Trouverons-nous des villages sur notre chemin?
Are there any other roads going to ———?	Y a-t-il d'autres chemins pour aller à ——?
Is this road in good condition?	Cette route est-elle en bon état?
Are there hills?	Y a-t-il des côtes (des coteaux)?
Are they steep?	Sont-elles raides?
Does the road go through open or wooded country?	La route traverse-t-elle un pays découvert ou boisé?
Can we get through with artillery?	Peut-on passer avec de l'artillerie?
Can we get through with heavily loaded wagons (auto trucks)?	Peut-on passer avec de grosses voitures chargées (avec des camions-automobiles)?

Is this road practicable for artillery?	Cette route est-elle praticable pour l'artillerie?
Can infantry march on the sides of the roads?	L'infanterie peut-elle marcher sur les côtés de la route?
Is the ground practicable	Le terrain est-il praticable?
Is the ground marshy	Le terrain est-il marécageux?
What is the nature of the ground	Quelle est la nature du sol?
Does the telegraph line follow this road as far as X?	Est-ce que la ligne télégraphique (le télégraphe) suit cette route jusqu'à X?
Where does your railroad come from?	D'où vient votre chemin de fer?
Where does it go to?	Où va-t-il?
Is it single tracked or double tracked the whole way?	Est-il à une voie ou à deux voies sur tout le parcours?
Where is the station? Is it far?	Où est la gare? Est-elle loin d'ici?
How can the river be crossed?	Comment peut-on passer la rivière?
Is there a bridge? a ferry?	Y a-t-il un pont? un bac?
Are there fords?	Y a-t-il des passages à gué (des gués)?
Can we get boats?	Peut-on trouver des bateaux?
In that wood are there clearings, ravines, brooks, marshes, pools?	Dans ce bois, y a-t-il des clairières, des ravins, des ruisseaux, des mares?
Are there any places near here for watering horses?	Y a-t-il des endroits près d'ici pour abreuver les chevaux?
Is the water good?	L'eau est-elle bonne?
Is this water drinkable?	Est-ce de l'eau potable?
Are there watering troughs?	Y a-t-il des abreuvoirs?
Where is there good grass for the animals?	Où y a-t-il de bonne herbe pour les animaux?
Can we buy provisions?	Peut-on acheter des vivres?
Is there a field where we can camp?	Y a-t-il un champ où nous pouvons camper (installer notre campement)?
Can you give me any information about the enemy?	Pouvez-vous me donner des renseignements sur l'ennemi?
Please find me a guide who knows the country?	Veuillez me trouver un guide qui connaisse le pays.
We are going to follow this trail (tracks)	Nous allons suivre cette piste.
Crossroads	Un carrefour.

TOWNS.

Where is the post-office and telegraph office?	Où est le bureau des postes et télégraphes?
The postmaster	Le directeur des postes et télégraphes.
The mail	Le courrier.
When was the last mail distributed?	A quelle heure a-t-on fait la dernière distribution?
General delivery	Poste restante.
Are there any letters for ——?	Y a-t-il des lettres pour ——?
I should like to send a telegram	Je voudrais expédier un télégramme.
Have you received a telegram for ——?	Avez-vous reçu un télégramme (une dépêche) pour ——?
A telegraph instrument	Un appareil (télégraphique).
Can you tell me where the mayor's office is?	Pourriez-vous me dire où se trouve la mairie?
I couldn't tell you; I am a stranger here	Je ne saurais vous renseigner; je ne connais pas la ville.
Good morning, sir, are you the mayor?	Bonjour, Monsieur, êtes-vous le maire?
No, sir, I am his assistant	Non, Monsieur, je suis son adjoint.
I should like to speak to the mayor himself	Je voudrais parler au maire lui-même.
Listen, sir. A detachment will arrive here to-morrow morning at 5 o'clock	Ecoutez, monsieur. Un détachement arrivera ici demain matin à cinq heures.
Can you arrange to lodge 2,000 men for two days?	Pouvez-vous prendre des dispositions pour loger 2,000 hommes pendant deux jours?
A policeman	Un sergent de ville, un agent de la paix.

RAILROADS.

The station agent	Le chef de gare.
The conductor	Le conducteur.
The engineer	Le mécanicien.
The fireman	Le chauffeur.
The brakeman	Le serre-freins.

The telegraph operator	Le télégraphiste.
An engine	Une locomotive.
Passenger cars	Des wagons (de voyageurs).
Flat cars	Des trucks.
Box cars	Des wagons de marchandises.
Stock cars	Des wagons à bestiaux.
An express train	Un train express.
A through train	Un train direct.
A local train	Un train omnibus.
A passenger train	Un train de voyageurs.
A freight train	Un train de marchandises.
To entrain the troops	Embarquer les troupes.
To detrain the troops	Débarquer les troupes.
To get on a train	Monter dans un train.
To get off a train	Descendre d'un train.
The railroad track	La voie (ferrée).
A side track	Une voie de garage.
A ticket	Un billet.
A round trip ticket	Un billet d'aller et retour.
One way only	Aller seulement.
The ticket window	Le guichet.
At what time does the Paris train start?	A quelle heure part le train pour Paris?
It is late (15 minutes late)	Il est en retard (de quinze minutes).
Do we have to change cars?	Faut-il changer de train?
The train stops	Le train s'arrête.
All aboard!	En voiture!
The train starts	Le train s'ébranle.

RATIONS AND FOOD.

Provisions (in general)	Les vivres.
The ration	La ration.
Fresh beef	De la viande fraîche.
Bacon	Du lard.
Flour	De la farine.
Soft bread	Du pain frais.
Hard bread (crackers)	Du biscuit.
Field bread	Du pain de guerre.

Corn meal	De la farine de maïs.
Coffee	Du café.
Sugar	Du sucre.
Eggs	Des œufs.
Chickens	Des poulets.
Potatoes	Des pommes de terre.
Peas	Des pois.
String beans	Des haricots verts.
Vegetables (in general)	Des légumes.
An apple	Une pomme.
A pear	Une poire.
A cherry	Une cerise.
A peach	Une pêche.
Cheese	Du fromage.
Wine	Du vin.
Beer	De la bière.
A glass of beer	Un bock.
I am hungry	J'ai faim.
Bring me something to eat, please	Apportez-moi quelque chose à manger, s'il vous plaît.
I am thirsty	J'ai soif.
Please give me a glass of water	Veuillez me donner un verre d'eau.
Waiter, I'll take a beefsteak	Garçon, je désire un bifteck.

Some black coffee	Du café noir.
Coffee with milk	Du café au lait.
Rolls	Des petits pains.
Crescent rolls	Des croissants.

HOSPITALS.

A field hospital	Une ambulance.
A hospital (in general)	Un hôpital (plural: des hôpitaux).
A dressing station	Un poste de secours.
A first-aid dressing	Un pansement sommaire.
Red Cross	La Croix Rouge.
A doctor	Un médicin. Un docteur.
A surgeon	Un chirurgien.
A military surgeon	Un (médecin) major.

Assistant surgeon	Un aide-major.
A male nurse, hospital corps man	Un infirmier.
A female nurse	Une infirmière.
An ambulance	Une ambulance.
A stretcher (litter)	Un brancard.
A litter bearer	Un brancardier.
A roll of bandages	Un rouleau de bandage.
A first-aid packet	Un paquet de pansement.
A wounded man	Un blessé.
I am sick	Je suis malade.
I have a fever	J'ai la fièvre.
I have chills and fever	J'ai des frissons de fièvre.
I am constipated	Je suis constipé.
I have diarrhea	J'a i la diarrhée.

POINTS OF THE COMPASS.

North	Le nord.
South	Le sud.
East	L'est.
West	L'ouest.
Northeast	Le nord-est.
Southeast	Le sud-est.
Northwest	Le nord-ouest.
Southwest	Le sud-ouest.

TRENCH WARFARE.

Trench warfare	La guerre des tranchées. La guerre de position. La guerre de taupe (*moles*).
Trench	Une tranchée.
Communication trench	Un boyau (de communication).
The parapet	Le parapet.
A loophole	Un créneau. Une meurtrière.
A grenade	Une grenade.
A grenadier, bomber	Un grenadier.
Barbed wire	Du fil de fer barbelé.
Barbed wire entanglement	Un réseau de fils de fer barbelés.

Trench mortar	Un mortier.
	Un crapouillaud.
	Minenwerfer (German).
Bomb	Une bombe.
Howitzer	Un obusier.
Machine gun	Une mitrailleuse.
Fieldpiece	Une pièce de campagne.
75 millimeter field gun	Une pièce de soixante-quinze.
Siege gun	Une pièce de siège.
120 long	Cent vingt long.
120 short	Cent vingt court.
77 (German)	Soixante-dix-sept (allemand).
Shell	Un obus.
	Une marmite (slang).
	Un colis à domicile (slang).
Shrapnel	Un shrapnell.
	Un rageur (slang).
Periscope	Un périscope.
Trench knife	Un couteau de tranchée.
Dugout	Un abri dans les tranchées.
	Un cagibi (slang).
	Une cagna (slang).
	Un gourbi (slang).
	Une guitoune (slang).

NOTE.—In addressing an officer of grade superior to his own, an officer must use the possessive adjective; a senior addressing a junior uses the title of the grade only. Thus: A major to a colonel says "Mon colonel," but the colonel to the major would say "Commandant."

FORM FOR LAST WILL AND TESTAMENT.

Last Will and Testament
OF

I, _____

of _____

do make, publish, and declare this my last will and testament.

I give, devise, and bequeath to[1] _____

_____

_____

_____

_____

_____

_____

_____

_____

And I do give, devise, and bequeath all the rest and residue of my estate, both real and personal, to _____

_____

_____

_____

heirs and assigns forever,[2] _____

_____

_____

[1] Here insert specific legacies and devises.

[2] If the residue of the estate is given to several persons, add here the manner in which it is to be divided, as "in equal shares as tenants in common."

*I hereby appoint*_____

_____

_____*executor*

*of this my last will and testament, and I desire that*_____ *shall not be required to give bond for the performance of the duties of that office.*

Witness my hand this[1]_____

*day of*_____, *191*

_____

*Signed, published, and declared by*_____

_____

the above-named testator, as and for his last will and testament, in the presence of us, who, at his request and in his presence, and in the presence of each other, have subscribed our names as witnesses thereto.[2]

_____

Residence: _____

_____

Residence: _____

_____

Residence: _____

---

[1] If the will is made in Nevada, or if the testator has real estate in that State, he should affix his seal.

[2] If the will is made in Louisiana, unless it is wholly in the handwriting of the testator, there should be seven witnesses and a notary at the "sealing up." If wholly in his handwriting, no formalities are required.

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